ITU-T

H.846

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU (07/2016)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

E-health multimedia services and applications – Interoperability compliance testing of personal health systems (HRN, PAN, LAN, TAN and WAN)

Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 6: Device specializations: Manager

Recommendation ITU-T H.846



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Recommendation ITU-T H.846

Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 6: Device specializations: Manager

Summary

Recommendation ITU-T H.846 is a transposition of Continua Test Tool DG2013, Test Suite Structure & Test Purposes, PAN-LAN-TAN Interface; Part 6: Device Specializations. Manager (Version 1.6, 2014 01 24), that was developed by the Continua Health Alliance. A number of versions of this specification existed before transposition. The objective of this test specification is to provide a high probability of air interface interoperability between different devices.

This Recommendation includes an electronic attachment with the protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A.

History

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^{*} To access the Recommendation, type the URL http://handle.itu.int/ in the address field of your web browser, followed by the Recommendation's unique ID. For example, http://handle.itu.int/11.1002/1000/11830-en.

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Electronic attachment: This Recommendation includes an electronic attachment with the protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A.

Introduction

This Recommendation is a transposition of Continua Test Tool DG2013, Test Suite Structure & Test Purposes, PAN-LAN-TAN Interface; Part 6: Device Specializations. Manager (Version 1.6, 2014-01-24), that was developed by the Continua Health Alliance. A number of versions of this specification existed before transposition and these can be found in the table below.

Version	Date	Revision history		
1.4	2012-10-05	Initial release for Test Tool DG2011. It uses "TSS&TP_1.5_PAN-LAN_PART_6_v1.3.doc" as a baseline and it adds the following maintenance bugs fixes:		
		TP/PLT/MAN/CLASS/AM/BV-032: Modified according to bug report 874		
		TP/PLT/MAN/CLASS/PF/BV-013: Modified according to bug report 875		
1.5	2013-05-24	Initial release for Test Tool DG2012. It uses "TSS&TP_DG2011_PAN-LAN_PART_6_v1.4.doc" as a baseline and it adds new features included in [b-CDG 2012]:		
		Add Glucose Meter new spec version		
		Add Body Composition Analyser Device Specialization		
		Add Basic Electrocardiograph Device Specialization		
1.6	2014-01-24	Initial release for Test Tool DG2013. It uses "TSS&TP_DG2012_PAN-LAN_PART_6_v1.5.doc" as a baseline and it adds new features included in [b-CDG 2013]:		
		Add Glucose Meter BLE		
		Add BLE SSP support		
		Add NFC new transport		
		Add INR Device Specialization		

Recommendation ITU-T H.846

Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 6: Device specializations: Manager

1 Scope

The scope of this Recommendation¹ is to provide a test suite structure and the test purposes (TSS & TP) for the PAN/LAN/TAN interface based on the requirements defined in the Continua Design Guidelines (CDG) [ITU-T H.810 (2015)].. The objective of this test specification is to provide a high probability of air interface interoperability between different devices.

TSS & TP for the PAN/LAN/TAN interface have been divided into 10 parts specified below. This Recommendation covers Part 6.

- Part 1: Optimized exchange protocol [ISO/IEEE 11073-20601A] Agent
- Part 2: Optimized exchange protocol [ISO/IEEE 11073-20601A] Manager
- Part 3: Continua design guidelines. Agent
- Part 4: Continua design guidelines. Manager
- Part 5: Device specializations. Agent. This document is divided into 14 subparts:
 - Part 5A: Weighing scales
 - Part 5B: Glucose meter
 - Part 5C: Pulse oximeter
 - Part 5D: Blood pressure monitor
 - **Part 5E**: Thermometer
 - Part 5F: Cardiovascular fitness and activity monitor
 - Part 5G: Strength fitness equipment
 - Part 5H: Independent living activity hub
 - **Part 5I**: Adherence monitor
 - **Part 5J**: Insulin pump (Future development)
 - **Part 5K**: Peak flow
 - Part 5L: Body composition analyser
 - Part 5M: Basic electrocardiograph
 - Part 5N: International normalized ratio monitor
- Part 6: Device specializations. Manager
- Part 7: Continua design guidelines. Agent BLE
- Part 8: Continua design guidelines. Manager BLE
- Part 9: Personal health devices transcoding white paper. Agent
- Part 10: Personal health devices transcoding white paper. Manager

¹ This Recommendation includes an electronic attachment with the protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

uns Recommendation does no	of give it, as a stand-arone document, the status of a Recommendation.
[ITU-T H.810 (2016)]	Recommendation ITU-T H.810 (2016), <i>Interoperability design</i> guidelines for personal health systems.
[ITU-T H.810 (2015)]	Recommendation ITU-T H.810 (2015), <i>Interoperability design</i> guidelines for personal health systems.
[IEEE 11073-10406]	IEEE 11073-10406-2011, Health informatics – Personal health device communication – Part 10406: Device specialization – Basic electrocardiograph (ECG) (1- to 3-lead ECG).
[IEEE 11073-10417]	IEEE 11073-10417-2009, Health informatics – Personal health device communication – Part 10417: Device specialization – Glucose meter.
[IEEE 11073-10418]	IEEE 11073-10418-2011, Health informatics – Personal health device communication – Part 10418: Device specialization – International Normalized Ratio (INR) monitor.
[IEEE 11073-10420]	IEEE 11073-10420-2010, Health informatics – Personal health device communication – Part 10420: Device specialization – Body composition analyzer.
[ISO/IEEE 11073-10424]	ISO/IEEE 11073-10424:2016, Health informatics — Personal health device communication — Part 10424: Device specialization — Sleep apnoea breathing therapy equipment (SABTE). http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=68906 >
	NOTE – equivalent to IEEE 11073-10424-2014, <i>Health informatics</i> – <i>Personal health device communication</i> – <i>Part 10424: Device Specialization</i> – <i>Sleep Apnoea Breathing Therapy Equipment (SABTE)</i> , http://dx.doi.org/10.1109/IEEESTD.2014.6911927
[IEEE 11073-10441]	IEEE 11073-10441-2008, Health informatics – Personal Health Device Communication – Part 10441: Device Specialization – Cardiovascular Fitness and Activity Monitor.
[ISO/IEEE 11073-20601A]	ISO/IEEE 11073-20601:2010, Health informatics – Personal health device communication – Part 20601: Application profile – Optimized exchange protocol, including ISO/IEEE 11073-20601:2010 Amd 1:2015.
	http://www.iso.org/iso/home/store/catalogue tc/catalogue detail.htm?csnumber=54331> with http://www.iso.org/iso/home/store/catalogue tc/catalogue detail.htm?csnumber=63972>
[ISO/IEEE 11073-104xx]	ISO/IEEE 11073-104xx (in force), <i>Health informatics – Personal health device communication – Device specialization</i> .
	NOTE – This is shorthand to refer to the collection of device specialization

number from 01 to 99, inclusive.

standards that utilize [ISO/IEEE 11073-20601A], where xx can be any

[ISO/IEEE 11073-10404]	ISO/IEEE 11073-10404:2010, Health informatics – Personal health device communication – Part 10404: Device specialization – Pulse oximeter.
[ISO/IEEE 11073-10407]	ISO/IEEE 11073-10407:2010, Health informatics – Personal health device communication – Device specialization – Blood pressure monitor, version 1.0.
[ISO/IEEE 11073-10408]	ISO/IEEE 11073-10408:2010, Health informatics – Personal health device communication – Part 10408: Device specialization – Thermometer.
[ISO/IEEE 11073-10415]	ISO/IEEE 11073-10415:2010, Health informatics – Personal health device communication – Part 10415: Device specialization – Weighing scale.
[ISO/IEEE 11073-10421]	ISO/IEEE 11073-10421:2012, Health informatics – Personal health device communication – Part 10421: Device specialization – Peak expiratory flow monitor (peak flow).
[ISO/IEEE 11073-10442]	ISO/IEEE 11073-10442:2012, Health informatics – Personal health device communication – Part 10442: Device specialization – Strength fitness equipment.
[ISO/IEEE 11073-10471]	ISO/IEEE 11073-10471:2010, Health informatics – Personal health device communication – Part 10471: Device specialization – Independent living activity hub.
[ISO/IEEE 11073-10472]	ISO/IEEE 11073-10472:2012, Health informatics – Personal health device communication – Part 10472: Device specialization – Medication monitor.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

- **3.1.1 agent** [ISO/IEEE 11073-20601A]: A node that collects and transmits personal health data to an associated manager.
- **3.1.2** manager [ISO/IEEE 11073-20601A]: A node receiving data from one or more agent systems. Some examples of managers include a cellular phone, health appliance, set top box, or a computer system.

3.2 Terms defined in this Recommendation

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ATS Abstract Test Suite

BPM Blood pressure monitor

CDG Continua Design Guidelines

DUT Device Under Test

GUI Graphical User Interface

INR International Normalized Ratio

IUT Implementation Under Test

MAP Mean arterial pressure

MDS Medical Device System

NaN Not a number

NFC Near Field Communication

NRes Not at this resolution

PAN Personal Area Network

PCO Point of Control and Observation

PCT Protocol Conformance Testing

PHD Personal Healthcare Device

PHDC Personal Healthcare Device Class

PHM Personal Health Manager

PICS Protocol Implementation Conformance Statement

PIXIT Protocol Implementation extra Information for Testing

SABTE Sleep Apnoea Breathing Therapy Equipment

SDP Service Discovery Protocol

SOAP Simple Object Access Protocol

TCRL Test Case Reference List

TCWG Test and Certification Working Group

TP Test Purpose

TSS Test Suite Structure

UI User interface

USB Universal Serial Bus

WDM Windows Driver Model

5 Conventions

The key words "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "MAY", "MAY NOT" in this Recommendation are to be interpreted as in [b-ETSI SR 001 262].

- SHALL is equivalent to "must" or "it is required to".
- SHALL NOT is equivalent to "must not" or "it is not allowed".
- SHOULD is equivalent to "it is recommended to".
- SHOULD NOT is equivalent to "it is not recommended to".
- MAY is equivalent to "is permitted".
- MAY NOT is equivalent to "it is not required that".

NOTE- The above-mentioned key words are capitalized for illustrative purposes only and they do not appear capitalized within this Recommendation.

Reference is made in the ITU-T H.800-series of Recommendations to different versions of the Continua Design Guidelines (CDG) by a specific designation. The list of terms that may be used in this Recommendation is provided in Table 1.

Table 1 – List of designations associated with the various versions of the CDG

CDG release	Transposed as	Version	Description	Designation
2016 plus errata	[ITU-T H.810 (2016)]	6.1	Release 2016 plus errata noting all ratified bugs [ITU-T H.810 (2016)].	_
2016	-	6.0	Release 2016 of the CDG including maintenance updates of the CDG 2015 and additional guidelines that cover new functionalities.	Iris
2015 plus errata	[ITU-T H.810 (2015)]	5.1	Release 2015 plus errata noting all ratified bugs [ITU-T H.810 (2015)].	_
2015	-	5.0	Release 2015 of the CDG including maintenance updates of the CDG 2013 and additional guidelines that cover new functionalities.	Genome
2013 plus errata	[ITU-T H.810 (2013)]	4.1	Release 2013 plus errata noting all ratified bugs [b-ITU-T H.810 (2013)].	_
2013	-	4.0	Release 2013 of the CDG including maintenance updates of the CDG 2012 and additional guidelines that cover new functionalities.	Endorphin
2012 plus errata	_	3.1	Release 2012 plus errata noting all ratified bugs [b-CDG 2012].	_
2012	-	3.0	Release 2012 of the CDG including maintenance updates of the CDG 2011 and additional guidelines that cover new functionalities.	Catalyst
2011 plus errata	_	2.1	CDG 2011 integrated with identified errata.	_
2011	-	2.0	Release 2011 of the CDG including maintenance updates of the CDG 2010 and additional guidelines that cover new functionalities [b-CDG 2011].	Adrenaline
2010 plus errata	_	1.6	CDG 2010 integrated with identified errata	_
2010	_	1.5	Release 2010 of the CDG with maintenance updates of the CDG Version 1 and additional guidelines that cover new functionalities [b-CDG 2010].	1.5
1.0	_	1.0	First released version of the CDG [b-CDG 1.0].	_

6 Test suite structure (TSS)

The test purposes (TPs) for the PAN/LAN/TAN interface have been divided into the main subgroups specified below. Annex A describes the TPs for subgroups 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.3.5, 2.3.6, 2.3.7, 2.3.8, 2.3.9, 2.3.11, 2.3.12, 2.3.13 and 2.3.14 (shown in bold).

- Group 1: Agent (AG)
 - Group 1.1: Transport (TR)
 - Subgroup 1.1.1: Design guidelines: Common (DGC)
 - Subgroup 1.1.2: USB design guidelines (UDG)
 - Subgroup 1.1.3: Bluetooth design guidelines (BDG)
 - Subgroup 1.1.4: Pulse oximeter design guidelines (PODG)
 - Subgroup 1.1.5: Cardiovascular design guidelines (CVDG)
 - Subgroup 1.1.6: Activity hub design guidelines (HUBDG)
 - Subgroup 1.1.7: ZigBee design guidelines (ZDG)
 - Subgroup 1.1.8: Glucose meter design guidelines (GLDG)
 - Subgroup 1.1.9: Bluetooth low energy design guidelines (BLEDG)
 - Subgroup 1.1.10: Basic electrocardiograph design guidelines (ECGDG)
 - Subgroup 1.1.11: NFC design guidelines (NDG)
 - Group 1.2: 20601: Optimized exchange protocol (OXP)
 - Subgroup 1.2.1: PHD domain information model (DIM)
 - Subgroup 1.2.2: PHD service model (SER)
 - Subgroup 1.2.3: PHD communication model (COM)
 - Group 1.3: Devices class specializations (CLASS)
 - Subgroup 1.3.1: Weighing scales (WEG)
 - Subgroup 1.3.2: Glucose meter (GL)
 - Subgroup 1.3.3: Pulse oximeter (PO)
 - Subgroup 1.3.4: Blood pressure monitor (BPM)
 - Subgroup 1.3.5: Thermometer (TH)
 - Subgroup 1.3.6: Cardiovascular (CV)
 - Subgroup 1.3.7: Strength (ST)
 - Subgroup 1.3.8: Activity hub (HUB)
 - Subgroup 1.3.9: Adherence monitor (AM)
 - Subgroup 1.3.10: Insulin pump (IP) (Future development)
 - Subgroup 1.3.11: Peak flow (PF)
 - Subgroup 1.3.12: Body composition analyzer (BCA)
 - Subgroup 1.3.13: Basic electrocardiograph (ECG)
 - Subgroup 1.3.14: International normalized ratio (INR)
 - Subgroup 1.3.15: Sleep apnoea breathing therapy equipment (SABTE)

- Group 1.4: Personal health device transcoding whitepaper (PHDTW)
 - Subgroup 1.4.1: Whitepaper general requirements (GEN)
 - Subgroup 1.4.2: Whitepaper thermometer requirements (TH)
 - Subgroup 1.4.3: Whitepaper blood pressure requirements (BPM)
 - Subgroup 1.4.4: Whitepaper heart rate requirements (HR)
 - Subgroup 1.4.5: Whitepaper glucose meter requirements (GL)
 - Subgroup 1.4.6: Whitepaper weight scale requirements (WS)
- Group 2: Manager (MAN)
 - Group 2.1: Transport (TR)
 - Subgroup 2.1.1: Design guidelines: Common (DGC)
 - Subgroup 2.1.2: USB design guidelines (UDG)
 - Subgroup 2.1.3: Bluetooth design guidelines (BDG)
 - Subgroup 2.1.4: Cardiovascular design guidelines (CVDG)
 - Subgroup 2.1.5: Activity hub design guidelines (HUBDG)
 - Subgroup 2.1.6: ZigBee design guidelines (ZDG)
 - Subgroup 2.1.7: Bluetooth low energy design guidelines (BLEDG)
 - Subgroup 2.1.8: NFC design guidelines (NDG)
 - Group 2.2: 20601: Optimized exchange protocol (OXP)
 - Subgroup 2.2.1: General (GEN)
 - Subgroup 2.2.2: PHD domain information model (DIM)
 - Subgroup 2.2.3: PHD service model (SER)
 - Subgroup 2.2.4: PHD communication model (COM)
 - Group 2.3: Devices class specializations (CLASS)
 - Subgroup 2.3.1: Weighing scales (WEG)
 - Subgroup 2.3.2: Glucose meter (GL)
 - Subgroup 2.3.3: Pulse oximeter (PO)
 - Subgroup 2.3.4: Blood pressure monitor (BPM)
 - Subgroup 2.3.5: Thermometer (TH)
 - Subgroup 2.3.6: Cardiovascular (CV)
 - Subgroup 2.3.7: Strength (ST)
 - Subgroup 2.3.8: Activity hub (HUB)
 - Subgroup 2.3.9: Adherence monitor (AM)
 - Subgroup 2.3.10: Insulin pump (IP) (Future development)
 - Subgroup 2.3.11: Peak flow (PF)
 - Subgroup 2.3.12: Body composition analyser (BCA)
 - Subgroup 2.3.13: Basic electrocardiograph (ECG)
 - Subgroup 2.3.14: International normalized ratio (INR)
 - Subgroup 2.3.15: Sleep apnoea breathing therapy equipment (SABTE)

- Group 2.4: Personal health device transcoding whitepaper (PHDTW)
 - Subgroup 2.4.1: Whitepaper general requirements (GEN)
 - Subgroup 2.4.2: Whitepaper thermometer requirements (TH)
 - Subgroup 2.4.3: Whitepaper blood pressure requirements (BPM)
 - Subgroup 2.4.4: Whitepaper heart rate requirements (HR)
 - Subgroup 2.4.5: Whitepaper glucose meter requirements (GL)
 - Subgroup 2.4.6: Whitepaper weight scale requirements (WS)

7 Electronic attachment

The protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A can be downloaded from http://handle.itu.int/11.1002/2000/12067.

In the electronic attachment, letters "C" and "I" in the column labelled "Mandatory" are used to distinguish between "PICS" and "PIXIT" respectively during testing. If the cell is empty, the corresponding PICS is "independent". If the field contains a "C", the corresponding PICS is dependent on other PICS, and the logical expression is detailed in the "SCR_Expression" field. The static conformance review (SCR) is used in the test tool to assert whether the PICS selection is consistent.

Annex A

Test purposes

(This annex forms an integral part of this Recommendation.)

A.1 TP definition conventions

The test purposes (TPs) are defined according to the following rules:

- **TP Id**: This is a unique identifier (TP/<TT>/<DUT>/<GR>/<SGR>/<XX> <NNN>). It is specified according to the naming convention defined below:
 - Each test purpose identifier is introduced by the prefix "TP".
 - <TT>: This is the test tool that will be used in the test case.
 - PAN: Personal area network (Bluetooth or USB)
 - LAN: Local area network (ZigBee)
 - PAN-LAN: Personal area network (Bluetooth or USB) Local area network (ZigBee)
 - LP-PAN: Low power personal area network (Bluetooth low energy)
 - TAN: Touch area network (NFC)
 - PLT: Personal area network (Bluetooth or USB) Local area network (ZigBee) Touch area network (NFC)
 - O <DUT>: This is the device under test.
 - AG: PAN/LAN Agent
 - MAN: PAN/LAN Manager

 - <SGR>: This identifies a subgroup of test cases.
 - <XX>: This identifies the type of testing.
 - BV: Valid Behaviour Test
 - BI: Invalid Behaviour Test
 - <NNN>: This is a sequential number that identifies the test purpose.
- **TP label**: This is the TP's title.
- **Coverage**: This contains the specification reference and clause to be checked by the TP.
 - Spec: This indicates the earliest version of the specification from which the testable items to be checked by the TP were included.
 - Testable item: This contains testable items to be checked by the TP.
- **Test purpose**: This is a description of the requirements to be tested.
- **Applicability**: This contains the PICS items that define if the test case is applicable or not for a specific device. When a TP contains an "ALL" in this field it means that it applies to the device under test within that scope of the test (specialization, transport used, etc.).
- Other PICS: This contains additional PICS items (apart from the PICS specified in the Applicability row) which are used within the test case implementation and can modify the final verdict. When this row is empty, it means that only the PICS specified in the Applicability row are used within the test case implementation.
- **Initial condition**: This indicates the state to which the DUT needs to be moved at the beginning of TC execution.

- **Test procedure**: This describes the steps to be followed in order to execute the test case.
- **Pass/Fail criteria**: This provides criteria to decide whether the DUT passes or fails the test case.

A.2 Subgroup 2.3.1: Weighing scales (WEG)

TP Id		TP/PLT/MAN/CLASS/WEG/BV-001				
TP label	Association procedure Manager WEG					
Coverage Spec		[ISO/IEEE 11073-10415]				
	Testable	Weighing.Association 8;O	Weighing.Association 8;O Weighing.Association 12;M Weighing.As			
	items	Weighing.Association 14;M	Weighing.Association 15;M	Weighing.Association 16;M		
		Weighing.Association 17;M	Weighing.Association 18;M	Weighing.Association 19;M		
		Weighing.Association 20;M	Weighing.Association 21;M	Weighing.Association 22;M		
		Weighing.Association 23;M				
Test purpos	se	Check that: Association Response data e.	xchange (data-proto-id, data- pr	oto-info):		
			with which it is associating and,	eld (System-Id) to determine the optionally, to implement a		
		[AND]				
		[association response]: The result field shall be set to an appropriate response from those defined in ISO/IEEE P11073-20601.				
		[AND]				
		[association response]: In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601 (i.e. , data-proto-id = 0x5079)				
		[AND]				
		[association response data-proto-info field parameters]: The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)				
		[AND]				
			oto-info field parameters]: The Nat is supported by both Agent			
		[AND]				
		[association response data-proto-info field parameters]: The Manager shall support at least the MDER encoding rules				
		[AND]				
		[association response data-proto-info field parameters]: The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)				
		[AND]				
		[association response data-proto-info field parameters]: The field functional-units shall have all bits reset except for those relating to a Test Association				
		[AND]				
		[association response data-proto-info field parameters]: The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)				
		[AND]				
		[association response data-proto-info field parameters]: The system-id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier				

	[AND]						
	[association response data-proto-info field parameters]: The field dev-config-id shall be						
	manager-config-response (0)						
	[AND]						
	[association response data-proto-info field parameters]: The field data-req-mode-capab shall be 0						
	[AND]						
	[association response data-proto-info field parameters]: The fields data-req-init-*-count shall be 0						
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_024						
Other PICS							
Initial condition	The manager is in the unassociated state.						
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:						
	□ protocol-version = '100000000000000000000000000000000000						
	□ encoding-rules= '100000000000000'B						
	□ nomenclature-version = '100000000000000000000000000000000000						
	☐ functional-units = '00000000000000000000000000000000000						
	□ system-type = '000000001000000000000000000000000000						
	dev-config-id = 16449						
	☐ data-rep-mode-capab =						
	data_req_mode_flags= '000000000000001'B						
	data_req_init_agent_count = 1						
	data_req_init_manager_count =0						
	□ option-list.length=0;						
	2. The manager under test sends an association response. The fields of interest are:						
	a. APDU Type						
	☐ field-length = 2 bytes						
	☐ field-value = 0xE3 0x00 (AareApdu)						
	b. Result						
	☐ field- type = AssociateResult						
	☐ field-length = 2 bytes						
	☐ field-value = One of the following:						
	 If association is accepted, field-value=0x00 0x00. 						
	 If association is rejected-permanent, field-value=0x00 0x01. 						
	 If association is rejected-transient, field-value=0x00 0x02. 						
	 If association is accepted-unknown-config, field-value=0x00 0x03. 						
	 If association is rejected-no-common-protocol, field-value=0x00 0x04. 						
	 If association is rejected-no-common-parameter, field-value=0x00 0x05. 						
	If association is rejected-unknown, field-value=0x00 0x06.						
	If association is rejected-unauthorized, field-value=0x00 0x07.						
	If association is rejected–unsupported-assoc-version, field-value=0x00 0x08.						

C.	selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))
d.	data-proto-id
	☐ field- type = DataProtoId
	☐ field-length = 2 bytes
	☐ field-value=0x50 0x79 (20601)
e.	protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
f.	encoding-rules
	☐ field-type = EncodingRules
	☐ field-length = 2 bytes (BITS-16)
	☐ field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	■ Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
i.	system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
j.	system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field-value = (EUI-64 manufacturer and device)
k.	dev-config-id
	☐ field- type = ConfigId
	☐ field-length = 2 bytes
	☐ field-value = 0x00 0x00 (manager-config-response)
l.	data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	$\Box \text{field-value} = 0x00 \ 0x00$

	m.	data-req-init-agent-count (DataReqModeCapab)		
		☐ field- type = INT-U8		
		☐ field-length = = 1 byte		
		☐ field-value = 0x00		
	n. data-req-init-manager-count (DataReqModeCapab)			
		☐ field- type = INT-U8		
		☐ field-length = = 1 byte		
		☐ field-value = 0x00 b		
Pass/Fail criteria	All chec	checked values are as specified in the test procedure.		
Notes	Value for protocol-version has been modified according to [ISO/IEEE 11073-20601A].			

TP Id			TP/PLT/MAN/CLASS/WEG/BV-002				
TP label			Configuration Event Report. Weighing Scale standard configuration				
Coverage Spec		[ISC	O/IEEE 11073-20601A]				
	Testable items	Cor	nfEventRep 18;M				
Test purpose	9	Che	eck that:				
		star	A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.				
		to e		ay request the agent to send the s and check attributes from the MD ne agent.			
Applicability		C_I	MAN_OXP_000 AND C_N	IAN_OXP_024			
Other PICS							
Initial condit	ion	The simulated agent and the manager under test are in an unassociated state.					
Test procedu		1.	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x05 0xDC (Weighing Scales).				
		2.	The manager under test	responds with an association resp	ponse, the field of interest is:		
			a. Result				
			field- type =	= INT-U16			
			☐ field-length =2 l	pytes			
		☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)					
		If the result of the association response was "accepted-unknown-config"					
		3. The simulated agent sends a configuration event report with config-report-id set to 0x0 0xDC			th config-report-id set to 0x05		
			4. The manager under test must respond with:				
			a. APDU Type				
			☐ field-length =2 l	pytes			
			☐ field-value =0xE	E7 0x00 (PrstAdpu)			
		b. Invoke-id					
			☐ field- type = IN	⁻ -U16			

			field-length =2 bytes
			field-value= it must be the same as the invoke-id of the simulated agent's message.
	c.	Ob	j-Handle:
			field- type = HANDLE
			field-length =2 bytes
			field-value = 0x00 0x00
	d.	Eve	ent-time:
			field- type = INT-U32
			field-length =4 bytes
			field-value: 0xXX 0xXX
	e.	Eve	ent-type:
			field-length = 2 bytes
			field-value= MDC_NOTI_CONFIG
	f.	The	e following six bytes indicate:
			Event-replay-info.length (2 bytes)
			ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
			ConfigReportRsp.config-result: One of:
			 accepted-config: 0x00 0x00
	Wait u	ntil th	e operating state is reached in both cases.
	5. Th	ne sim	nulated agent sends a fixed event report with one measurement.
Pass/Fail criteria			nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
	• Th	ne me	asurement is correctly presented.
Notes	See bu	ıg <u>htt</u>	p://continua.plugfests.com/show_bug.cgi?id=123

TP ld		TP/PLT/MAN/CLASS/WEG/BV-	003	
11 14		TF/FLI/WAN/CLASS/WLG/BV-003		
TP label	1	Attribute-Value-Map. Order char	nge.	
Coverage	Spec	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 22;M		
Test purpos	ie	Check that:		
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present		
		The value of the [Attribute-Value then MDC_ATTR_TIME_STAM		ATTR_NU_VAL_OBS_SIMP,
Applicability		C_MAN_OXP_000 AND C_MAN	N_OXP_024	
Other PICS				
Initial condition		The simulated agent and the maconfiguration.	anager under test are in the ope	erating state using the standard

Test procedure	 The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS.
	2. The simulated agent waits until it receives a confirmation.
	 The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 (Body Weight Object) to reverse the values to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_SIMP.
	4. The simulated agent waits until it receives a confirmation.
	5. Send a confirmed fixed format event report with the date first followed by a weight value (in kilograms since it is the standard configuration unit code).
	6. The simulated agent waits until it receives a confirmation.
	7. The simulated agent sends an association release request (normal).
	8. The simulated agent waits until there is an association release response.
	The simulated agent sends an association request using the same standard configuration that was used previously.
	10. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS). The weight observation should be a reasonable kilogram weight observation.
	12. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	• In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes. E.g. if there is a user interface (UI), verify that the measurement and date are displayed properly.
	 In steps 2, 6 and 12 verify that the manager under test uses kilograms as the unit-code for the measurement report (or reports the proper value after conversion to another unit code).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	
	•

TP ld		TP/PLT/MAN/CLASS/WEG/BV-004
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map
Coverage	Spec	[ISO/IEEE 11073-10415]
	Testable items	WeightNumClass 22;M

Test purpose	Check that:
	For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present
	The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS. Manager accepts the measurements (fixed format event report) and shows them correctly when the unit-code is changed.
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration. (Body Weight Numeric standard configuration Unit code attribute is set to MDC_DIM_KILO_G)
Test procedure	 The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 (Body Weight Object) to set the values to: MDC_ATTR_NU_VAL_OBS_SIMP, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.
	2. The simulated agent waits until it receives a confirmation.
	Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use pounds MDC_DIM_LB (1760).
	4. The simulated agent waits until it receives a confirmation.
	 The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_SIMP attribute.
	6. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	 In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).
	 In steps 4 and 6, verify that the manager under test uses pounds as the unit-code for the measurement reports.
Notes	

TP Id		TP/PLT/MAN/CLASS/WEG/BV-005		
TP label Unit-Code. Change from default kilograms to pounds – fixed format observation			mat observation	
Coverage Spec		[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 20;M		
Test purpos	ie .	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] att	ribute shall be MDC_DIM_KILO	_G.
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_024 AND C_MAN_WE	G_001
Other PICS				
Initial condition		The simulated agent and the maconfiguration.	anager under test are in the ope	rating state using the standard

Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760).
	2.	The simulated agent waits until it receives a confirmation.
		Send a confirmed fixed format event report using a measurement in pounds followed by date and time stamp.
	4.	The simulated agent waits until it receives a confirmation.
	5.	The simulated agent sends an association release request (normal).
	6.	The simulated agent waits until it receives an association release response.
		The simulated agent sends an association request using the same configuration that was used initially.
		If the manager under test responds with association request response with "accepted-unknown-config", then
		 The simulated agent sends the confirmed configuration event report with the standard configuration.
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
		The simulated agent sends a fixed event report with an observation in kilograms followed by date and time stamp.
	10.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria		In step 4, verify that the manager under test is able to accept the data properly and applies pounds to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
		In step 10, verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes		

TP Id		TP/PLT/MAN/CLASS/WEG/BV-005_A		
TP label		Unit-Code. Do not change from default kilograms to pounds – fixed format observation		
Coverage	Spec	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 20;M		
Test purpos	se .	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G.		
Applicability	у	C_MAN_OXP_000 AND C_MAN_OXP_024 AND (NOT(C_MAN_WEG_001))		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760).		
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.		
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in pounds followed by date and time stamp.		

	4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.
	5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.
Pass/Fail criteria	In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.
Notes	

TP ld		TP/PLT/MAN/CLASS/WEG/BV-006		
TP label		Unit-Code. Use default kilograms – variable format observation.		
Coverage	Spec	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 20;M		
Test purpos	е	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_024		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test proced	ure	Send a confirmed variable format event report using a measurement in kilograms.		
		2. The simulated agent waits until it receives a confirmation.		
Pass/Fail cri	iteria	 Verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 		
Notes				

TP ld		TP/PLT/MAN/CLASS/WEG/BV-007		
TP label Unit-Code. Change from default kilograms to pounds – variable format observa		Unit-Code. Change from default kilograms to pounds – variable format observation		
Coverage Spec		[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 20;M		
Test purpose		Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001		

Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	Send a confirmed variable format event report to set the unit code to pounds MDC_DIM_LB (1760) for handle 1 (Body Weight Object) and a measurement in pounds
	2. The simulated agent waits until it receives a confirmation.
	3. Send a second confirmed variable format event report with just a measurement in pounds (i.e., do not transmit the unit-code attribute in the event report).
	4. The simulated agent waits until it receives a confirmation.
	5. The simulated agent sends an association release request (normal).
	6. The simulated agent waits until it receives an association release response.
	7. The simulated agent sends an association request using the same configuration that was used initially.
	8. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9. The simulated agent sends a confirmed variable event report with an observation in kilograms followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to kilograms by the standard configuration).
	10. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies pounds to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 10, verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP ld		TP/PLT/MAN/CLASS/WEG/BV-008		
TP label		Maximum APDU size: Weighing Scale		
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4;M		
Test purpose		an error (roer) code of protocol- The manager's receive buffer s specializations the manager su	at is larger than the manager's r-violation. hall be at least as large as the lapports. The buffer size limitation of whether a standard or extende	argest buffer specified in the s in this bullet and the next on
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_024	
Other PICS				
Initial condition		The manager under test is in th	e operating state.	

Test procedure	The simulated agent sends a Confirmed variable event report:			
Tool procedure	a. ScanReportInfoVar. obs_scan_var:			
	☐ Length = 858			
	ObservationScan ::= {			
	obj-handle: 1			
	attributes: AttributeList ::= {			
	AVA-Type ::= {			
	attribute-id: 61441			
	attribute-value: '00(832 bytes) 00'0			
	}			
	}			
	}			
	ObservationScan ::= {			
	obj-handle: 1			
	<pre>attributes: AttributeList ::= {</pre>			
	AVA-Type ::= {			
	attribute-id: 2646 (MDC_ATTR_NU_VAL_OBS_SIMP)			
	attribute-value: 68			
	}			
	}			
	}			
	Check the response of the manager under test.			
	3. The simulated agent sends a confirmed fixed format event report with one measurement.			
	4. Check the response of the manager under test.			
Pass/Fail criteria	 In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report". 			
	 In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report". 			
Notes				

TP Id		TP/PLT/MAN/CLASS/WEG/BV-009			
TP label		Special values. Not a number – fixed format			
Coverage	overage Spec [ISO/IEEE 11073-10415]				
	Testable items	WeightNumClass 22; M			
Test purpose		Check that: Manager receives a NaN value (fixed format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_024			
Other PICS					

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
1. The simulated agent sends a confirmed fixed event report for handle 1 (Bod Object) containing an observation with the value for "not a number" (NaN, [6 mantissa +(2**23 -1) = 0x007FFFFF]) and a time stamp.		
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Verify that the manager under test is able to accept the data, but does not use as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" of the display area).		
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/WEG/BV-010		
TP label		Special values. Not a number – variable format		
Coverage	Spec	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 27; C		
Test purpose	e	Check that:		
		Manager receives a NaN value (variable format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_024		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Weight Object) containing an observation with the value for NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/WEG/BV-011		
TP label		Special values. Not at this resolution – fixed format		
Coverage	verage Spec [ISO/IEEE 11073-10415]			
	Testable items	WeightNumClass 22; M		
Test purpose		Check that: Manager receives NRes value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_024		

Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure	1. The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight Object) containing an observation with the value for "not at this resolution" (NRes, [exponent 0, mantissa –(2**23) = 0x00800000]) and a time stamp.	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
• Verify that the manager under test is able to accept the data, but does not use the assist they were an actual measurement (e.g. if there is a UI, verify that the measurement).		
Notes	This test case has been considered as an implicit test case.	

		TRIPLE TRANSPORTED (DVI out		
TP Id		TP/PLT/MAN/CLASS/WEG/BV-012		
TP label		Special values. Not at this resolution – variable format		
Coverage	Spec	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 27; C		
Test purpos	е	Check that:		
		Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_024		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed variable event report for handle 1 (Body Weight Object) containing an observation with the value for NRes ([exponent 0, mantissa – (2**23) = 0x00800000])		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/WEG/BV-013		
TP label		Special values. Positive infinity – fixed format		
Coverage Spec		[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 22; M		
Test purpose		Check that: Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_024		

Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 -2) = 0x007FFFFE]) and a time stamp. 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/WEG/BV-014		
TP label		Special values. Positive infinity – variable format		
Coverage Spec		[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 27; C		
Test purpos	е	Check that:		
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_024		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Weight Object) containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 -2) = 0x007FFFFE]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/WEG/BV	-015	
TP label		Special values. Negative infinity – fixed format		
Coverage	ge Spec [ISO/IEEE 11073-10415]			
	Testable items	WeightNumClass 22; M		
Test purpose		Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_024	

Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight Object) containing an observation with the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 –2) = 0x00800002]) and a time stamp.
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/WEG/BV-016			
TP label		Special values. Negative infinity – variable format			
Coverage	Spec	[ISO/IEEE 11073-10415]			
	Testable items	WeightNumClass 27; C			
Test purpos	е	Check that:			
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.			
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_024			
Other PICS					
Initial condit	tion	The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Weight Object) containing an observation with the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 –2) = 0x00800002]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes		This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/WEG/BV-017				
TP label		Special values. Reserved – fixed format				
Coverage	Spec	[ISO/IEEE 11073-10415]				
	Testable items	WeightNumClass 22; M				
Test purpose		Check that:				
		Manager receives a Reserved for future use value (fixed formatuse this value.	at event report) but it does not			

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_024				
Other PICS					
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight Object) containing an observation with the value that is reserved (Reserved for future use, [exponent 0, mantissa –(2**23–1) = 0x00800001]) and a time stamp. 				
	2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria	 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 				
Notes	This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/WEG/BV-018			
TP label		Special values. Reserved – variable format			
Coverage	Spec	[ISO/IEEE 11073-10415]			
	Testable items	WeightNumClass 27; C			
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does not use this value.			
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_024			
Other PICS					
Initial condit	tion	The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Weight Object) containing an observation with the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23–1) = 0x00800001]). The simulated agent waits until it receives a confirmation from the manager under test. 			
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).			
Notes		This test case has been considered as an implicit test case.			

A.3 Subgroup 2.3.2: Glucose meter (GL)

TP Id	TP/PLT/MAN/CLASS/GL/BV-000
TP label	Association procedure Manager GL

Coverage	Spec	[IEEE 11073-10417]						
	Testable items	ManProcAs 1;M	ManProcAs 2;M	ManProcAs 3;M				
	items	ManProcAs 4;M	ManProcAs 5;M	ManProcAs 6;M				
		ManProcAs 7;M	ManProcAs 8;M	ManProcAs 9;M				
		ManProcAs 10;M	ManProcAs 11;M	ManProcAs 12;M				
Test purpose	e	Check that:	Check that:					
		The result field shall be set to a P11073-20601.	n appropriate response from the	ose defined in ISO/IEEE				
		[AND]						
		In the DataProtoList structure edid-20601.	element, the data protocol identi	fier shall be set to data-proto-				
		[AND]						
		The data-proto-info field shall b	e filled in with a PhdAssociation	Information structure				
		[AND]						
		The version of the data exchan version = 0x80000000)	ge protocol shall be set to proto	col-version1 (i.e., protocol-				
		[AND]						
			h a single selected encoding rul ager shall support at least the M					
		[AND]	[AND]					
		The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)						
		[AND]						
		The field functional-units shall Association.	nave all bits reset except for tho	se relating to a Test				
		[AND]						
		The field system-type shall be	set to sys-type-manager (i.e., sy	rstem-type = 0x80000000)				
		[AND]						
		The System-Id field shall conta a valid EUI-64 type identifier	in the unique system id of the M	lanager device, which shall be				
		[AND]						
		The field dev-config-id shall be	manager-config-response (0)					
		[AND] The field data-req-mode-capab shall be 0						
		[AND]						
		The fields data-req-init-*-count shall be 0						
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_019						
Other PICS								
Initial condit	ion	The manager is in the unassociated state.						

Test procedure	1.	The sim fields:	ulate	ed agent sends an association request to the manager under test, with the
				protocol-version = '100000000000000000000000000000000000
				encoding-rules= '100000000000000'B
				nomenclature-version = '100000000000000000000000000000000000
				functional-units = '00000000000000000000000000000000000
				system-type = '000000010000000000000000000000000000
				dev-config-id = 16440
				data-rep-mode-capab =
				data_req_mode_flags= '00000000000001'B
				data_req_init_agent_count = 1
				data_req_init_manager_count =0
				option-list.length=0
	2.	The mar	nage	r under test sends an association response. The fields of interest are:
		a.	API	DU Type
				field-length = 2 bytes
				field-value = 0xE3 0x00 (AareApdu)
		b.	Res	sult
				field- type = AssociateResult
				field-length = 2 bytes
				field-value = One of the following:
				 If association is accepted, field-value=0x00 0x00.
				■ If association is rejected-permanent, field-value=0x00 0x01.
				■ If association is rejected-transient, field-value=0x00 0x02.
				■ If association is accepted-unknown-config, field-value=0x00 0x03.
				■ If association is rejected-no-common-protocol, field-value=0x00 0x04.
				 If association is rejected-no-common-parameter, field-value=0x00 0x05.
				■ If association is rejected—unknown = 0x00 0x06.
				■ If association is rejected-unauthorized, field-value=0x00 0x07.
				 If association is rejected–unsupported-assoc-version, field-value=0x00 0x08.
		C.		ected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and a-proto-info(defined by data-proto-id))
		d.	data	a-proto-id
				field- type = DataProtoId
				field-length = 2 bytes
				field-value=0x50 0x79 (20601)
		e.	pro	tocol-version
				field- type = Protocol Version
				field-length = 4 bytes (BITS-32)
				field-value=0x80 0x00 0x00 0x00
		f.	enc	oding-rules
				field-type = EncodingRules
				field-length = 2 bytes (BITS-16)

		☐ field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
	g.	nomenclature version
		☐ field- type = NomenclatureVersion
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value= Bit 0 must be set (nom-version1)
	h.	functional units
		☐ field-type = FunctionalUnits
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value =
		■ Bit 0 must be 0
		 Bits 1 and 2 may be set
		 The rest of the bits must not be set
	i.	system type
		☐ field- type = SystemType
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j.	system-id
		☐ field- type = OCTET STRING
		☐ field-length = 8 bytes
		☐ field-value = (EUI-64 manufacturer and device)
	k.	dev-config-id
		☐ field- type = Configld
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00 (manager-config-response)
	I.	data-req-mode-flags (DataReqModeCapab)
		☐ field- type = DataReqModeFlags
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00
		□ manager response to data-req-mode-flags is always 0.
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All checked	values are as specified in the test procedure.
Notes	Value for pro	otocol-version has been modified according to [ISO/IEEE 11073-20601A].
	1	J (

TP Id TP/PLT/MAN/CLASS/GL/BV-001								
TP label		Configuration Event Report. Glucose Meter standard configuration 1700						
Coverage	Spec	[IEEE 11073-10417]						
	Testable items	ConfProc 4;	М	MDSEvents 2;M	ObjAccServ 5;M			
	Spec	[ISO/IEEE 1	1073-20601A]					
	Testable items	ConfEventR	ep 18;M					
Test purpos	e	Operation R event using	Check that: The Manager shall respond to a configuration notification message using a "Remote Operation Response Confirmed Event Report" data message with an MDC_NOTI_CONFIG event using the ConfigReportRsp structure for the event-info field.					
		[AND] A Manager	shall support both	single-person and multi-	person event reports.			
		standards sl profiles liste	nall be able to acc		E 11073-104zz device specialization se configurations specified for the			
		to enter the		and check attributes from	end the standard configuration in order the MDS object prior to final			
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_019						
Other PICS								
Initial condition The simulated agent and the manager under test are agent implements a glucose meter device specialization.								
Test proced	ure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x06 0xA4 (Glucose Meter – Std Config 1700).						
		2. The ma	nager under test r	esponds with an associa	tion response, the field of interest is:			
		a. Re	sult					
		ifield- type = INT-U16						
		☐ field-length =2 bytes						
		field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)						
		If the result of the association response was "accepted-unknown-config" 3. The simulated agent sends a configuration event report with config-report-id set to 0x06						
		0xA4 4. The manager under test must respond with:						
		a. APDU Type						
			field-length =2 by	ytes				
			-	7 0x00 (PrstAdpu)				
		b. Inv	oke-id					
			field- type = INT-	·U16				
			field-length =2 by	ytes				
		field-value= it must be the same as the invoke-id of the simulated agent's message.						

	c. Obj-Handle:	
	☐ field- type = HANDLE	
	☐ field-length =2 bytes	
	☐ field-value = 0x00 0x00	
	d. Event-time:	
	☐ field- type = INT-U32	
	☐ field-length =4 bytes	
	☐ field-value: 0xXX 0xXX	
	e. Event-type:	
	☐ field-length = 2 bytes	
	☐ field-value= MDC_NOTI_CONFIG	
	f. The following six bytes indicate:	
	☐ Event-replay-info.length (2 bytes)	
	 ConfigReportRsp.config-report-id: it must be the same as config-resimulated agent's message 	eport-id of the
	☐ ConfigReportRsp.config-result: One of:	
	accepted-config: 0x00 0x00	
	Wait until the operating state is reached in both cases.	
	The simulated agent sends a fixed event report with one Blood Glucose (C blood reference method) measurement.	apillary Whole
Pass/Fail criteria	The manager under test must respond either to the association request wit "accepted" message or to the Configuration Event Report with an "accepte	
	The measurement is correctly presented.	
Notes		

TP ld		TP/PLT/MAN/CLASS/GL/BV-001_A				
TP label		Configuration Event Report. Glucose Meter standard configuration 1701				
Coverage	Spec	[IEEE 11073-10417]				
	Testable items	ConfProc 4;M	MDSEvents 2;M	ObjAccServ 5;M		
	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M				

Test purpose	Check that:		
rest purpose	The Manager shall respond to a configuration notification message using a "Remote Operation Response Confirmed Event Report" data message with an MDC NOTI CONFIG		
	event using the ConfigReportRsp structure for the event-info field.		
	[AND]		
	A Manager shall support both single-person and multi-person event reports.		
	[AND]		
	A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.		
	[AND]		
	Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS			
Initial condition	The simulated agent and the manager under test are in an unassociated state. The simulated agent implements a glucose meter device specialization with standard configuration 1701.		
Test procedure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x06 0xA5 (Glucose Meter – Std Config 1701).		
	2. The manager under test responds with an association response, the field of interest is:		
	a. Result		
	☐ field- type = INT-U16		
	☐ field-length =2 bytes		
	☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)		
	If the result of the association response was "accepted-unknown-config"		
	3. The simulated agent sends a configuration event report with config-report-id set to 0x06 0xA5		
	The manager under test must respond with:		
	a. APDU Type		
	☐ field-length =2 bytes		
	☐ field-value =0xE7 0x00 (PrstAdpu)		
	b. Invoke-id		
	☐ field- type = INT-U16		
	☐ field-length =2 bytes		
	field-value= it must be the same as the invoke-id of the simulated agent's message.		
	c. Obj-Handle:		
	☐ field- type = HANDLE		
	☐ field-length =2 bytes		
	$\Box \text{field-value} = 0x00 \ 0x00$		
	d. Event-time:		
	☐ field- type = INT-U32		
	☐ field-length =4 bytes		
	☐ field-value: 0xXX 0xXX		

	e. Event-type:	
	☐ field-length = 2 bytes	
	☐ field-value= MDC_NOTI_CONFIG	
	f. The following six bytes indicate:	
	☐ Event-replay-info.length (2 bytes)	
	 ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message 	
	☐ ConfigReportRsp.config-result: One of:	
	 accepted-config: 0x00 0x00 	
	Wait until the operating state is reached in both cases.	
	The simulated agent sends a fixed event report with one Blood Glucose (Undetermined plasma reference method) measurement and other fixed event report with Control Solution measurement.	
Pass/Fail criteria	The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config".	
	The measurement is correctly presented.	
Notes		

TP ld TP/PLT/MAN/CLASS/GL/BV-002		TP/PLT/MAN/CLASS/GL/BV-002	
TP label Maximum APDU size: Glucose Meter without PM-Store		Maximum APDU size: Glucose Meter without PM-Store	
Coverage	Spec	[ISO/IEEE 11073-20601A]	
	Testable items	CommonCharac 4;M	
	Spec	[IEEE 11073-10417]	
	Testable items	ComChar 2; M	
Test purpos	se	Check that:	
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.	
specializations the manager supports. The buffer size limitations in this bullet		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next capply to all APDUs regardless of whether a standard or extended configuration is being use	
Applicabilit	Applicability C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS	Other PICS		
Initial condition The manager under test is in the operating state.			

Test procedure	The simulated agent sends a Confirmed variable event report:	
	a. ScanReportInfoVar. obs_scan_var:	
	☐ Count =2	
	☐ Length = 5080	
	ObservationScan ::= {	
	obj-handle: 1	
	attributes: AttributeList ::= {	
	AVA-Type ::= {	
	attribute-id: 61441	
	attribute-value: '00(5056 bytes) 00'0	
	}	
	}	
	}	
	ObservationScan ::= {	
	obj-handle: 1	
	attributes: AttributeList ::= {	
	AVA-Type ::= {	
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)	
	attribute-value: 100	
	}	
	}	
	}	
	Check the response of the manager under test.	
	3. The simulated agent sends a confirmed fixed format event report with one measurement.	
	4. Check the response of the manager under test.	
Pass/Fail criteria	 In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report". 	
	• In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
Notes		

TP ld		TP/PLT/MAN/CLASS/GL/BV-002_A		
TP label	TP label Maximum APDU size: Glucose Meter with PM-Store			
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4;M		
Spec		[IEEE 11073-10417]		
	Testable items	ComChar 2; M		

Test purpose	Check that:		
	If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.		
	The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_OXP_003		
Other PICS			
Initial condition	The manager under test is in the operating state.		
Test procedure	The simulated agent sends a Confirmed variable event report:		
	a. ScanReportInfoVar. obs_scan_var:		
	☐ Count = 2		
	☐ Length = 64472		
	ObservationScan ::= {		
	obj-handle: 1		
	attributes: AttributeList ::= {		
	AVA-Type ::= {		
	attribute-id: 61441		
	attribute-value: '00(64448 bytes) 00'0		
	}		
	}		
	}		
	ObservationScan ::= {		
	obj-handle: 1		
	attributes: AttributeList ::= {		
	AVA-Type ::= {		
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)		
	attribute-value: 80		
	}		
	}		
	}		
	Check the response of the manager under test.		
	3. The simulated agent sends a confirmed fixed format event report with one measurement.		
	4. Check the response of the manager under test.		
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report"		
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report"		
Notes			

TP ld		TP/PLT/MAN/CLASS/GL/BV-003		
TP label		Blood Glucose Attribute-Value-Map. Order change		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 10;M		
Test purpose		Check that: For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC		
Applicability	1	MDC_ATTR_TIME_STAMP_ABS C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test proced	ure	The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS.		
		2. The simulated agent waits until it receives a confirmation.		
		3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Blood Glucose Object) to reverse the values to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC.		
		4. The simulated agent waits until it receives a confirmation.		
		5. Send a confirmed fixed format event report with the date first followed by a blood glucose value (in mg/dL since it is the standard configuration unit code).		
		6. The simulated agent waits until it receives a confirmation.		
		7. The simulated agent sends an association release request (normal).		
		8. The simulated agent waits until there is an association release response.		
		9. The simulated agent sends an association request using the same standard configuration that was used previously.		
		 If the manager under test responds with association request response with "accepted- unknown-config", then 		
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 		
		 The simulated agent waits until there is a confirmation to the configuration event report that was sent. 		
		11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS). The observation should be a reasonable mg/dL blood glucose observation.		
12. The simulated a		12. The simulated agent waits until it receives a confirmation.		
Pass/Fail criteria		• In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).		
		 In steps 2, 6 and 12 verify that the manager under test uses mg/dL as the unit code for the measurement report (or reports the proper value after conversion to another unit code). 		
		In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).		

	When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP Id TP/PLT/MAN/CLASS/GL/BV-004				
TP label		Blood Glucose Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage Spec		[IEEE 11073-10417]		
	Testable items	BloodGL 10;M		
Test purpos	e	Check that:		
		For [Standard-Configuration]	the [Attribute-Value-Map] attribute	e shall be present
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_ABS		
Applicability	1	C_MAN_OXP_000 AND C_M	IAN_OXP_019 AND C_MAN_GL	_001
Other PICS				
Initial condit	nitial condition The simulated agent and the manager under test are in the operating state using the configuration. (Blood Glucose Numeric standard configuration Unit code attribute is MDC_DIM_MILLI_G_PER_DL)			
Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Blood Glucose Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.		
		2. The simulated agent waits until it receives a confirmation.		
		3. Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use MDC_DIM_MILLI_MOLE_PER_L (4722).		
		4. The simulated agent waits until it receives a confirmation.		
		5. The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC attribute.		
		6. The simulated agent waits until it receives a confirmation.		
Pass/Fail criteria		 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). 		
		• In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).		
		In steps 4 and 6, verify that the manager under test uses mmol/L as the unit code for the measurement reports.		
Notes				

TP ld	TP/PLT/MAN/CLASS/GL/BV-005	
TP label	Blood Glucose Unit-Code. Change from default mg/dL to mmol/L – fixed format observation	

Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 8;M		
	Spec	[ITU-T H.810 (2015)]		
	Testable items	Communication 9; M		
Test purpose Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be predicted that the value of the [Unit-Code] attribute shall be MDC_DIM_MILLI_CODE. [AND] Continua PAN client components that receive a report of a configuration of the change to future measurements only		LI_G_PER_DL		
Applicability		C_MAN_OXP_000 AND C_M	IAN_OXP_019 AND C_MAN_GI	001
Other PICS				
Initial conditi	on	The simulated agent and the configuration.	manager under test are in the op	perating state using the standard
Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unandle 1 (Blood Glucose Object) to mmol/L nomenclature code MDC_DIM_MILLI_MOLE_PER_L (4722). 2. The simulated agent waits until it receives a confirmation. 3. Send a confirmed fixed format event report using a measurement in mmol/L date and time stamp. 4. The simulated agent waits until it receives a confirmation. 5. The simulated agent sends an association release request (normal). 6. The simulated agent waits until it receives an association release response. 7. The simulated agent sends an association request using the same configurational used initially. 8. If the manager under test responds with association request response with "a unknown-config", then • The simulated agent sends the confirmed configuration event report with standard configuration. • The simulated agent waits until it receives a confirmation from the confirmation event report just sent. 9. The simulated agent sends a fixed event report with an observation in mg/dL date and time stamp. 10. The simulated agent waits until it receives a confirmation.		urement in mmol/L followed by st (normal). release response. the same configuration that was est response with "accepted- on event report with the ation from the confirmed bservation in mg/dL followed by		
 In step 4, verify that the manager under test is able to accept the dapplies mmol/L to the observation (e.g. if there is a UI, verify that the date are displayed properly even if they are converted to a different lines applies mg/dL to the observation (e.g. if there is a UI, verify that the date are displayed properly even if they are converted to a different date are displayed properly even if they are converted to a different date are displayed properly even if they are converted to a different date. 		rify that the measurement and a different set of units). ccept the data properly and lify that the measurement and		
Notes		date are displayed prope	ny svom maley are convented to	a amoronic sociol anno).

TP ld		TP/PLT/MAN/CLASS/GL/BV-005_A		
TP label		Blood Glucose Unit-Code. Do not change from default mg/dL to mmol/L – fixed format observation		
Coverage Spec		[IEEE 11073-10417]		
	Testable items	BloodGL 8;M		
Test purpose	;	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute sh	nall be present	
		The value of the [Unit-Code] attribute shall be MDC_DIM	/I_MILLI_G_PER_DL	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_019 AND (NOT	(C_MAN_GL_001))	
Other PICS				
Initial conditi	on	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedu	ire	The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Blood Glucose Object) to mmol/L nomenclature code MDC_DIM_MILLI_MOLE_PER_L (4722).		
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.		
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in mmol/L followed by date and time stamp.		
		4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.		
		5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.		
Pass/Fail criteria		 In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message. 		
		In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.		
		In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.		
Notes				

TP ld		TP/PLT/MAN/CLASS/GL/BV-006		
TP label		Blood Glucose Unit-Code. Use	e default mg/dL – variable forma	t observation
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 8;M		
Test purpose			ne [Unit-Code] attribute shall be ttribute shall be MDC_DIM_MILI	'
Applicability		C_MAN_OXP_000 AND C_M/	AN_OXP_019	
Other PICS				

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure	 Send a confirmed variable format event report using a measurement in mg/dL. The simulated agent waits until it receives a confirmation. 	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data properly and applies mg/dL to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 	
Notes		

TP ld		TP/PLT/MAN/CLASS/GL/BV-007			
TP label		Blood Glucose Unit-Code. Change from default mg/dL to mmol/L – variable format observation			
Coverage Spec		[IEEE 11073-10417]			
	Testable items	BloodGL 8;M			
	Spec	[ITU-T H.810 (2015)]			
	Testable items	Communication 9; M			
Test purpos	se	Check that:			
		For [Standard-Configuratio	n] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code	e] attribute shall be MDC_DIM_MILLI_G_PER_DL		
		[AND]			
		Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only			
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_001			
Other PICS					
Initial condi	ition	The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test proced	lure	Send a confirmed variable format event report to set the unit code to mmol/L MDC_DIM_MILLI_MOLE_PER_L (4722) for handle 1 (Blood Glucose Object) and a measurement in mmol/L.			
		2. The simulated agent waits until it receives a confirmation.			
		3. Send a second confirmed variable format event report with just a measurement in mmol/L (i.e., do not transmit the unit-code attribute in the event report).			
		4. The simulated agent waits until it receives a confirmation.			
		5. The simulated agent sends an association release request (normal).			
		6. The simulated agent waits until it receives an association release response.			
		7. The simulated agent sends an association request using the same configuration that was used initially.			
		8. If the manager under test responds with association request response with "accepted-unknown-config", then			
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 			

	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. The simulated agent sends a confirmed variable event report with an observation in mg/dL followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to mg/dL by the standard configuration).
	10. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	• In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies mmol/L to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 10, verify that the manager under test is able to accept the data properly and applies mg/dL to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP Id		TP/PLT/MAN/CLASS/GL/BV-008		
TP label		Special values. Not a number – fixed format (Std Config 1700)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 10; M		
Test purpos	е	Check that:		
		Manager receives a NaN value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. 		
		The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/GL/BV-009	
TP label		Special values. Not a number – variable format (Std Config 1700)	
Coverage Spec		[IEEE 11073-10417]	
	Testable items	BloodGL 20; M	
Test purpose		Check that:	
		Manager receives a NaN value (varia	ble format event report) but it does not use this value.

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019	
Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1700.	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).	
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/GL/BV-010		
TP label		Special values. Not at this resolution – fixed format (Std Config 1700)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 10; M		
Test purpose	е	Check that:		
		Manager receives NRes value (fixed format event report) but it does not use this value.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/GL/BV-011		
TP label		Special values. Not at this resolution – variable format (Std Config 1700)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 20; M		
Test purpose		Check that:		
		Manager receives NRes value (variab	le format event report) but it does not use this value.	

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019	
Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1700.	
Test procedure	1. The simulated agent sends a confirmed variable event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]).	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI,, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/GL/BV-012		
TP label		Special values. Positive infinity – fixed format (Std Config 1700)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 10; M		
Test purpos	е	Check that:		
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/GL/BV-013		
TP label		Special values. Positive infinity – variable format (Std Config 1700)		
Coverage Spec		[IEEE 11073-10417]		
	Testable items	BloodGL 20; M		

Test purpose	Check that:		
	Manager receives a + INFINITY value (variable format event report) but it does not use this value.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes	This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/GL/BV-014		
TP label		Special values. Negative infinity – fixed format (Std Config 1700)		
Coverage Spec		[IEEE 11073-10417]		
	Testable items	BloodGL 10; M		
Test purpose Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use the content of		Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.		
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS	Other PICS			
Initial condition The simulated agent and the configuration 1700.		The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Object) containing an observation value set to the value for		 The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
		as if they were an actual measurement (e.g. if there is a UI, verify that the measurement		
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.		

TP Id TP/PLT/MAN/CLASS/GL/BV-015				
TP label		Special values. Negative infinity – variable format (Std Config 1700)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 20; M		

Test purpose	Check that:		
	Manager receives a - INFINITY value (variable format event report) but it does not use this value.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes	This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/GL/BV-016		
TP label		Special values. Reserved – fixed format (Std Config 1700)		
Coverage	verage Spec [IEEE 11073-10417]			
	Testable items	BloodGL 10; M		
Test purpose Check that: Manager receives a Reserved for fuse this value.		Manager receives a Reserved for future use value (fixed format event report) but it does not		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Object) containing an observation value set to the values, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and		 The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 		
		 Verify that the manager under test either reports an error or is able to accept the data, bu does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.		

TP ld	TP/PLT/MAN/CLASS/GL/BV-017
TP label	Special values. Reserved – variable format (Std Config 1700)

Coverage	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 20; M		
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does		
Applicability	/	not use this value. C_MAN_OXP_000 AND C_MA	AN_OXP_019	
Other PICS				
Initial condi	tion	The simulated agent and the manager under test are in the operating state using the standard configuration 1700.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Blood Glucose Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Verify that the manager under te does not use the values as if the verify that the measurement is d measurement).		s if they were an actual measure	ment (e.g. if there is a UI,	
Notes	Notes This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/GL/BV-018			
TP label		Control Solution Attribu	ite-Value-Map. Order change		
Coverage	Spec	[IEEE 11073-10417]			
	Testable items	CtrlSol 8;M			
Test purpose		Check that:			
		For [Standard-Configure	ration] the [Attribute-Value-Map] attribute shall be present		
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_ABS			
Applicabilit	у	C_MAN_OXP_000 AN	D C_MAN_OXP_019		
Other PICS					
		The simulated agent au configuration.	nd the manager under test are in the operating state using the standard		
Test procedure		The simulated agent sends a Control Solution confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS			
		2. The simulated agent waits until it receives a confirmation.			
		Value-Map configu	3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 2 (Control Solution Object) to reverse the values to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC.		
		4. The simulated age	. The simulated agent waits until it receives a confirmation.		
		 Send a confirmed fixed format event report with the date first followed by a control solution value (in mg/dL since it is the standard configuration unit code). 			

	6. The simulated agent waits until it receives a confirmation.
	7. The simulated agent sends an association release request (normal).
	8. The simulated agent waits until there is an association release response.
	9. The simulated agent sends an association request using the same standard configuration that was used previously.
	10. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS). The observation should be a reasonable mg/dL blood glucose observation.
	12. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	 In steps 2, 6 and 12 verify that the manager under test uses mg/dL as the unit code for the measurement report (or reports the proper value after conversion to another unit code).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP Id		TP/PLT/MAN/CLASS/GL/BV-019		
TP label		Control Solution Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 8;M		
Test purpose		Check that: For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_ABS		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_002		
Other PICS				
Initial condition		The simulated agent and the ma configuration (Control Solution N MDC_DIM_MILLI_G_PER_DL).		

Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 2 (Control Solution Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.	
	2.	The simulated agent waits until it receives a confirmation.	
	3.	Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use MDC_DIM_MILLI_MOLE_PER_L (4722).	
	4.	The simulated agent waits until it receives a confirmation.	
	 The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC attribute. 		
	6.	The simulated agent waits until it receives a confirmation.	
Pass/Fail criteria	• In step 4, verify that the manager under test is able to accept the data properly a applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).		
	•	In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).	
	•	In steps 4 and 6, verify that the manager under test uses mmol/L as the unit code for the measurement reports.	
Notes			

TP ld		TP/PLT/MAN/CLASS/GL/BV-020			
TP label		Control Solution Unit-Code. Change from default mg/dL to mmol/L – fixed format observation			
Coverage Spec		[IEEE 11073-10417]			
	Testable items	CtrlSol 6;M			
	Spec	[ITU-T H.810 (2015)]			
	Testable items	Communication 9; M			
Test purpos	se	Check that:			
		For [Standard-Configuration] the [Unit-Code] attribute shall be present			
		The value of the [Unit-Code] attribute shall be MDC_DIM_MILLI_G_PER_DL			
		[AND]			
		Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only			
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_002			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		 The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Control Solution Object) to mmol/L nomenclature code MDC_DIM_MILLI_MOLE_PER_L (4722). 			
		2. The simulated agent waits until it receives a confirmation.			
		3. Send a confirmed fixed format event report using a measurement in mmol/L followed by date and time stamp.			

	4.	The simulated agent waits until it receives a confirmation.	
	5.	The simulated agent sends an association release request (normal).	
	6. The simulated agent waits until it receives an association release response.		
	7. The simulated agent sends an association request using the same configuration used initially.		
	8.	If the manager under test responds with association request response with "accepted-unknown-config", then	
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 	
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 	
	9.	The simulated agent sends a fixed event report with an observation in mg/dL followed date and time stamp.	
	10.	The simulated agent waits until it receives a confirmation.	
Pass/Fail criteria	•	In step 4, verify that the manager under test is able to accept the data properly and applies mmol/L to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).	
	•	In step 10, verify that the manager under test is able to accept the data properly and applies mg/dL to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).	
Notes			

TP Id		TP/PLT/MAN/CLASS/GL/BV-021		
TP label		Control Solution Unit-Code. Do not change from default mg/dL to mmol/L – fixed format observation		
Coverage	Coverage Spec [IEEE 11073-10417]			
	Testable items	CtrlSol 6;M		
Test purpose		Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_MILLI_G_PER_DL		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_019 AND (NOT(C_MAN_GL_002))		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Control Solution Object) to mmol/L nomenclature code MDC_DIM_MILLI_MOLE_PER_L (4722).		
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.		
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in mmol/L followed by date and time stamp.		
		4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.		
		5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.		

Pass/Fail criteria	 In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or mana sends a roer message, abrt message, release association or rorj message. 	
	•	In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.
Notes		

TP ld		TP/PLT/MAN/CLASS/GL/BV-022		
TP label		Control Solution Unit-Code. Use default mg/dL – variable format observation		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 6;M		
Test purpose		Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_MILLI_G_PER_DL		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		 Send a confirmed variable format event report using a measurement in mg/dL. The simulated agent waits until it receives a confirmation. 		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data properly and applies mg/dL to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 		
Notes				

TP ld		TP/PLT/MAN/CLASS/GL/BV-023		
TP label		Control Solution Unit-Code. Change from default mg/dL to mmol/L – variable format observation		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 6;M		
	Spec	[ITU-T H.810 (2015)]		
	Testable items	Communication 9; M		

T	Oh a aladh ad
Test purpose	Check that:
	For [Standard-Configuration] the [Unit-Code] attribute shall be present
	The value of the [Unit-Code] attribute shall be MDC_DIM_MILLI_G_PER_DL
	[AND]
	Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_002
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	 Send a confirmed variable format event report to set the unit code to mmol/L MDC_DIM_MILLI_MOLE_PER_L (4722) for handle 2 (Control Solution Object) and a measurement in mmol/L.
	2. The simulated agent waits until it receives a confirmation.
	3. Send a second confirmed variable format event report with just a measurement in mmol/L (i.e., do not transmit the unit-code attribute in the event report).
	4. The simulated agent waits until it receives a confirmation.
	5. The simulated agent sends an association release request (normal).
	6. The simulated agent waits until it receives an association release response.
	7. The simulated agent sends an association request using the same configuration that was used initially.
	8. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9. The simulated agent sends a confirmed variable event report with an observation in mg/dL followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to mg/dL by the standard configuration).
	10. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	• In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies mmol/L to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	In step 10, verify that the manager under test is able to accept the data properly and applies mg/dL to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP ld		TP/PLT/MAN/CLASS/GL/BV-024
TP label		Special values. Not a number – fixed format (Std Config 1701)
Coverage Spec [IEEE 11073-10417]		[IEEE 11073-10417]
	Testable items	CtrlSol 8; M

Test purpose	Check that:	
	Manager receives a NaN value (fixed format event report) but it does not use this value.	
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_019	
Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1701.	
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 2 (Control Solution Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/GL/BV-025		
TP label		Special values. Not a number – variable format (Std Config 1701)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 12; M		
Test purpos	e	Check that: Manager receives a NaN value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 2 (Control Solution Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). The simulated agent waits until it receives a confirmation from the manager under test. 		
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).		
Notes This		This test case has been considered as an implicit test case.		

TP ld	TP/PLT/MAN/CLASS/GL/BV-026
TP label	Special values. Not at this resolution – fixed format (Std Config 1701)

Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 8; M		
Test purpose		Check that: Manager receives NRes value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MA	AN_OXP_019	
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.		
Test procedure		•	s a confirmed fixed event report ervation value set to the value for time stamp.	•
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes This test case has been considered as an implicit tes		lered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/GL/BV-027		
TP label		Special values. Not at this resolution – variable format (Std Config 1701)		
Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 12; M		
Test purpos	е	Check that:		
		Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_019		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.		
Test procedure		The simulated agent sends a confirmed variable event report for handle 2 (Control Solution Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP Id	TP/PLT/MAN/CLASS/GL/BV-028
TP label	Special values. Positive infinity – fixed format (Std Config 1701)

Coverage	Spec	[IEEE 11073-10417]		
	Testable items	CtrlSol 8; M		
Test purpose		Check that: Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MA	N_OXP_019	
Other PICS				
		The simulated agent and the m configuration 1701.	nanager under test are in the ope	erating state using the standard
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 2 (Control Solution Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/GL/BV-029			
TP label		Special values. Positive infinity – variable format (Std Config 1701)			
Coverage	Spec	[IEEE 11073-10417]			
	Testable items	CtrlSol 12; M			
Test purpos	e	Check that:			
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.			
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_019			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.			
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 2 (Control Solution Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]).			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).			
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.			

TP Id		TP/PLT/MAN/CLASS/GL/BV-030			
TP label		Special values. Negative infinity – fixed format (Std Config 1701)			
Coverage	Spec	[IEEE 11073-10417]			
	Testable items	CtrlSol 8; M			
Test purpos	se	Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.			
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_019			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.			
Object		 The simulated agent sends a confirmed fixed event report for handle 2 (Control Solution Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
		as if they were an actual measurement (e.g. if there is a UI, verify that the measurement			
Notes	Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/GL/BV-031			
TP label		Special values. Negative infinity – variable format (Std Config 1701)			
Coverage	Spec	[IEEE 11073-10417]			
	Testable items	CtrlSol 12; M			
Test purpos	se .	Check that:			
		Manager receives a - INFINITY value (variable format event report) but it does not use to value.	his		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_019			
Other PICS					
Initial condition The simulated agent and the manager configuration 1701.		The simulated agent and the manager under test are in the operating state using the state configuration 1701.	andard		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 2 (Control Solution Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 			
		The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.			

TP Id		TP/PLT/MAN/CLASS/GL/BV-032			
TP label		Special values. Reserved – fixed format (Std Config 1701)			
Coverage	Spec	[IEEE 11073-10417]			
	Testable items	CtrlSol 8; M			
Test purpos	se .	Check that:			
		Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.			
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_019			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.			
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 2 (Control Solution Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp. 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.			

TP Id		TP/PLT/MAN/CLASS/GL/BV-033				
TP label		Special values. Reserved – variable format (Std Config 1701)				
Coverage	Spec	[IEEE 11073-10417]	[IEEE 11073-10417]			
	Testable items	CtrlSol 12; M	CtrlSol 12; M			
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does not use this value.				
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_019				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.				
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 2 (Control Solution Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]).				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				

Pass/Fail criteria	 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

A.4 Subgroup 2.3.3: Pulse oximeter (PO)

TP Id TP/PLT/MAN/CLASS/PC			03			
TP label		Association procedure Manager PO				
Coverage	Spec	[ISO/IEEE 11073-10404]				
	Testable	PulseAssocResp 1;M	PulseAssocResp 2;M	PulseAssocResp 5;M		
	items	PulseAssocResp 6;M	PulseAssocResp 7;M	PulseAssocResp 8;M		
		PulseAssocResp 9;M	PulseAssocResp 10;M	PulseAssocResp 11;M		
Test purpos	е	Check that:				
		id-20601 (i.e., data-proto-id =		ntifier shall be set to data-proto-		
		[AND]				
		•		onInformation structure and the l-version1 (i.e., protocol-version =		
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure and the version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)				
		[AND]				
		The data-proto-info field shall be field functional-units shall have		onInformation structure and the relating to a Test Association		
		[AND]				
		The data-proto-info field shall be field system-type shall be set to		onInformation structure and the em-type = 0x80000000)		
		[AND]				
		The data-proto-info field shall be system-id field shall contain the valid EUI-64 type identifier		onInformation structure and the ager device, which shall be a		
		[AND]				
		The data-proto-info field shall be field dev-config-id shall be mar		onInformation structure and the		
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure and the field data-req-mode-capab-flags shall be 0				
		[AND]				
			The data-proto-info field shall be filled in with a PhdAssociationInformation structure and the fields data-req-init-*-count shall be 0			
Applicability	1	C_MAN_OXP_000 AND C_MA	N_OXP_026			

Other PICS	
Initial condition	The manager is in the unassociated state.
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:
	□ protocol-version = '100000000000000000000000000000000000
	□ encoding-rules= '10000000000000'B
	□ nomenclature-version = '100000000000000000000000000000000000
	☐ functional-units = '00000000000000000000000000000000000
	□ system-type = '000000001000000000000000000000000000
	dev-config-id = 16443
	☐ data-rep-mode-capab =
	data_req_mode_flags= '00000000000001'B
	data_req_init_agent_count = 1
	data_req_init_manager_count =0
	□ option-list.length=0
	2. The manager under test sends an association response. The fields of interest are:
	a. APDU Type
	☐ field-length = 2 bytes
	☐ field-value = 0xE3 0x00 (AareApdu)
	b. Result
	☐ field- type = AssociateResult
	☐ field-length = 2 bytes
	☐ field-value = One of the following:
	 If association is accepted, field-value=0x00 0x00.
	 If association is rejected-permanent, field-value=0x00 0x01.
	 If association is rejected-transient, field-value=0x00 0x02.
	 If association is accepted-unknown-config, field-value=0x00 0x03.
	 If association is rejected-no-common-protocol, field-value=0x00 0x04.
	 If association is rejected-no-common-parameter, field-value=0x00 0x05.
	If association is rejected—unknown = 0x00 0x06.
	 If association is rejected-unauthorized, field-value=0x00 0x07.
	 If association is rejected—unsupported-assoc-version, field-value=0x00 0x08.
	c. selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))
	d. data-proto-id
	☐ field- type = DataProtoId
	☐ field-length = 2 bytes
	☐ field-value=0x50 0x79 (20601)
	e. protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00

	f.	encoding-rules
		☐ field-type = EncodingRules
		☐ field-length = 2 bytes (BITS-16)
		☐ field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
	g.	nomenclature version
		☐ field- type = NomenclatureVersion
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value= Bit 0 must be set (nom-version1)
	h.	functional units
		☐ field-type = FunctionalUnits
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value =
		Bit 0 must be 0
		 Bits 1 and 2 may be set
		 The rest of the bits must not be set
	i.	system type
		☐ field- type = SystemType
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j.	system-id
		☐ field- type = OCTET STRING
		☐ field-length = 8 bytes
		☐ field-value = (EUI-64 manufacturer and device)
	k.	dev-config-id
		☐ field- type = ConfigId
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00 (manager-config-response)
	I.	data-req-mode-flags (DataReqModeCapab)
		☐ field- type = DataReqModeFlags
		☐ field-length = 2 bytes
		$\Box \text{field-value} = 0x00 \ 0x00$
		☐ manager response to data-req-mode-flags is always 0.
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All chec	ked values are as specified in the test procedure.
Notes	Value fo	or protocol-version has been modified according to [ISO/IEEE 11073-20601A].

TP ld		TP	/PLT	/MAN/CLASS/PO/BV-004	
TP label		Configuration Event Report. Pulse Oximeter standard configuration 400			
Coverage	Spec	[IS	O/IE	EE 11073-20601A]	
	Testable items	Co	nfEv	entRep 18;M	
Test purpose	е	Ch	eck t	hat:	
		sta	ndar	ger that supports one (or more) of the ISO/IEEE 11073-104zz device specialization ds shall be able to accept all the standard device configurations specified for the listed in conformance Table 23 under Gen-4.	
		to e	enter	ively, the manager may request the agent to send the standard configuration in order the configuring state and check attributes from the MDS object prior to final ince (or rejection) of the agent.	
Applicability		C_	MAN	_OXP_000 AND C_MAN_OXP_026	
Other PICS					
Initial condit	ion	The	e sim	nulated agent and the manager under test are in an unassociated state	
Test procedu	ure	1.		e simulated agent test sends an association request to the manager under test with v-config-id set to 0x01 0x90 (PulseOximeter).	
		2.	The	e manager under test responds with an association response, the field of interest is:	
			a.	Result	
				ifield- type = INT-U16	
				in field-length =2 bytes	
		16.41		ifield-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)	
		If the result of the association response was "accepted-unknown-config" 3. The simulated agent sends a configuration event report with config-report-id set to 0x01			
		3.	0x9	e simulated agent sends a configuration event report with config-report-id set to 0x01 00.	
		4.	The	e manager under test must respond with:	
			a.	APDU Type	
				☐ field-length =2 bytes	
				☐ field-value =0xE7 0x00 (PrstAdpu)	
			b.	Invoke-id	
				☐ field- type = INT-U16	
				☐ field-length =2 bytes	
				field-value= it must be the same as the invoke-id of the simulated agent's message.	
			c.	Obj-Handle:	
				☐ field- type = HANDLE	
				☐ field-length =2 bytes	
				$\Box \text{field-value} = 0x00 \ 0x00$	
			d.	Event-time:	
				☐ field- type = INT-U32	
				☐ field-length =4 bytes	
				☐ field-value: 0xXX 0xXX	
			e.	Event-type:	
				☐ field-length = 2 bytes	

	☐ field-value= MDC_NOTI_CONFIG		
	f. The following six bytes indicate:		
	☐ Event-replay-info.length (2 bytes)		
	 ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message 		
	☐ ConfigReportRsp.config-result: One of:		
	accepted-config: 0x00 0x00		
	Wait until the operating state is reached in both cases.		
	5. The simulated agent sends a fixed event report with one measurement.		
Pass/Fail criteria	The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config".		
	The measurement is correctly presented.		
Notes	See http://continua.plugfests.com/show_bug.cgi?id=123		

TP ld		TP/PLT/MAN/CLASS/PO/BV-005					
TP label		Configuration Event Report. Pulse Oximeter standard configuration 401					
Coverage Spec			O/IEEE 11073-20601	A]			
	Testable items	Co	nfEventRep 18;M				
Test purpos	ie	Ch	Check that:				
		A Manager that supports one (or more)of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.					
		to e	ernatively, the managenter the configuring septance (or rejection	state a	nd check attributes		tandard configuration in order S object prior to final
Applicability	y	C_	MAN_OXP_000 AND	C_MA	AN_OXP_026		
Other PICS							
Initial condi	tion	The simulated agent and the manager under test are in an unassociated state.					
Test proced	ure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x01 0x91 (PulseOximeter).					
		2.	The manager under	test re	esponds with an as	sociation resp	oonse, the field of interest is:
			a. Result				
		☐ field- type = INT-U16					
			☐ field-length =2 bytes				
			☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-con		(accepted-unknown-config)		
		If the result of the association response was "accepted-unknown-config"					
		3. The simulated agent sends a configuration event report with config-report-id set to 0x01 0x91.					
		4. The manager under test must respond with:					
			a. APDU Type				
		☐ field-length =2 bytes					
		☐ field-value =0xE7 0x00 (PrstAdpu)					

	b.	Invoke-id
		☐ field- type = INT-U16
		☐ field-length =2 bytes
		☐ field-value= it must be the same as the invoke-id of the simulated agent's message.
	c.	Obj-Handle:
		☐ field- type = HANDLE
		☐ field-length =2 bytes
		☐ field-value = 0x00 0x00
	d.	Event-time:
		☐ field- type = INT-U32
		☐ field-length = 4 bytes
		☐ field-value: 0xXX 0xXX
	e.	Event-type:
		☐ field-length = 2 bytes
		☐ field-value= MDC_NOTI_CONFIG
	f.	The following six bytes indicate:
		☐ Event-replay-info.length (2 bytes)
		☐ ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
		☐ ConfigReportRsp.config-result: One of:
		 accepted-config: 0x00 0x00
	Wait un	til the operating state is reached in both cases.
	5. The	simulated agent sends a fixed event report with one measurement.
Pass/Fail criteria	•	The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config".
	•	The measurement is correctly presented.
Notes	See http	://continua.plugfests.com/show_bug.cgi?id=123

TP ld		TP/PLT/MAN/CLASS/PO/BV-006		
TP label		Maximum APDU size: Pulse Oximeter		
Coverage Spec		[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4;M		
Test purpos	se	Check that:		
		If a manager receives APDU that is larger tha an error (roer) code of protocol-violation.	n the manager's receive buffer, it shall reply with	
spec			as large as the largest buffer specified in the fer size limitiations in this bullet and the next on andard or extended configuration is being used.	
Applicability C_MAN_OXP_000 AND C_MAN_OXP_026				
Other PICS				

Initial condition	The manager under test is in the operating state.				
Test procedure	The simulated agent sends a Confirmed variable event report:				
	a. ScanReportInfoVar. obs_scan_var:				
	☐ Count =2				
	☐ Length = 5080				
	ObservationScan ::= {				
	obj-handle: 1 (SPO2)				
	attributes: AttributeList ::= {				
	AVA-Type ::= {				
	attribute-id: 61441				
	attribute-value: '00(5056 bytes) 00'0				
	}				
	}				
	}				
	ObservationScan ::= {				
	obj-handle: 1 (SPO2)				
	attributes: AttributeList ::= {				
	AVA-Type ::= {				
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)				
	attribute-value: 98				
	}				
	}				
	}				
	2. Check the response of the manager under test.				
	3. The simulated agent sends a confirmed fixed event report with one measurement.				
	4. Check the response of the manager under test.				
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".				
	 In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report". 				
Notes					

TP ld		TP/PLT/MAN/CLASS/PO/BV-007		
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 11;M		
Test purpose		Check that: For [Standard-Configuration] [AMDC_ATTR_NU_VAL_OBS_E		ibute must be present and with value
Applicability		C_MAN_OXP_000 AND C_MA		

Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 0x190.		
Test procedure	 The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (SpO₂ Object) to set the values to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC. For handle 10 (Pulse Rate Object), set the attribute value map to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC 		
	2. The simulated agent waits until it receives a confirmation.		
	3. Send a confirmed fixed format event report with the new data layout.		
	4. The simulated agent waits until it receives a confirmation.		
Pass/Fail criteria	 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). 		
	• In step 4, verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).		
Notes			

TP ld		TP/PLT/MAN/CLASS/PO/BV-008		
TP label		Unit-Code. Use default % and beats per minute (beats/min) – variable format observation.		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 10;M		
	Spec	[ITU-T H.810 (2015)]		
	Testable items	Communication 9; M		
Test purpose		Check that: For [Standard-Configuration] [Unit-Code] value is MDC_DIM_PERCENT [AND] Continua PAN client components that receive a report of a configuration change shall apply		
Applicability	,	the change to future measurements only] C_MAN_OXP_000 AND C_MAN_OXP_026		
Other PICS				
Initial condi	tion	The simulated agent and the manager under test are in the operating state using the standard configuration 0x190.		
Test procedure		Send a confirmed variable format event report for handle 1 using a measurement in % and for handle 10 using a measurement in beats/min.		
		2. The simulated agent waits until it receives a confirmation.		
Pass/Fail criteria		Verify that the manager under test is able to accept the data properly and applies % and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).		
Notes				

TP ld		TP/PLT/MAN/CLASS/PO/BV-009			
TP label		Supplemental-Type: SpO ₂ — Standard configuration 0x191			
Coverage	Spec	[ISO/IEEE 11073-10404]			
	Testable items	Spo2StandConf 1;C			
Test purpose)	Check that:			
		For SpO2 numeric Object the and for Dev-Configuration-Id to 0x191 the Supplemental-Types attribute shall contain a single entry in its SupplementalTypeList, and its value shall be MDC_MODALITY_SPOT.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_026			
Other PICS					
Initial conditi	ion	The simulated agent and the manager under test are in the operating state using the standard configuration 0x191.			
Test procedure		 The simulated agent sends a confirmed fixed format event report from handle 1 (SpO₂ Object) that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC. The simulated agent waits until it receives a confirmation. 			
Pass/Fail criteria		In step 2. Verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes and Supplemental-Type for Object with handle 1 is MDC_MODALITY_SPOT (e.g. if there is a UI, verify that the measurement and date are displayed properly).			
Notes					

TP ld		TP/PLT/MAN/CLASS/PO/BV-010		
TP label		Supplemental-Type: Pulse Rate— Standard configuration 0x191		
Coverage Spec		[ISO/IEEE 11073-10404]		
	Testable items	PulseRateStandConf 1;C		
Test purpose		Check that: For Pulse Rate numeric Object the and for Dev-Configuration-Id to 0x191 the Supplemental- Types attribute shall contain a single entry in its SupplementalTypeList, and its value shall be MDC_MODALITY_SPOT.		
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_026		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 0x191.		
Test procedure		Simulated Agent sends a confirmed fixed format event report from handle 10 (Pulse Rate Object) that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC.		
		2. The simulated agent waits until it receives a confirmation.		

Pass/Fail criteria	In step 2. Verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes and Supplemental-Type for Object with handle 10 is MDC_MODALITY_SPOT (e.g. if there is a UI, verify that the measurement and date are displayed properly).
Notes	

TP ld		TP/PLT/MAN/CLASS/PO/BV-011			
TP label		Special values. Not a number – fixed format			
Coverage	Spec	[ISO/IEEE 11073-10404]			
	Testable items	SpO2NumObjAttr 11; M	PulseRateNumObjAttr 28; M		
Test purpose		Check that:			
		Manager receives a NaN value (fixed format event report) but it does not use this value.			
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_026			
Other PICS					
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes		This test case has been considered as an implicit test case.			

TP ld TP label		TP/PLT/MAN/CLASS/PO/BV-012		
		Special values. Not a number – variable format		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 16; C	PulseRateNumObjAttr 33; C	
Test purpose		Check that: Manager receives a NaN value (variable format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_026		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		

Test procedure	1. The simulated agent sends a confirmed variable event report for handle 1 (SpO ₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/PO/BV-013			
TP label		Special values. Not at this resolution – fixed format			
Coverage	Spec	[ISO/IEEE 11073-10404]			
	Testable items	SpO2NumObjAttr 11; M	PulseRateNumObjAttr 28; M		
Test purpose		Check that: Manager receives NRes value (fixed format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_026			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes		This test case has been considered as an implicit test case.			

TP Id TP label		TP/PLT/MAN/CLASS/PO/BV-014			
		Special values. Not at this resolution – variable format			
Coverage	Spec	[ISO/IEEE 11073-10404]			
	Testable items	SpO2NumObjAttr 16; C	PulseRateNumObjAttr 33; C		
Test purpose		Check that: Manager receives NRes value (variable format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_026			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			

Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/PO/BV-015		
TP label		Special values. Positive infinity – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 11; M	PulseRateNumObjAttr 28; M	
Test purpos	se	Check that:		
		Manager receives a + INFII value.	NITY value (fixed format event repo	rt) but it does not use this
Applicabilit	у	C_MAN_OXP_000 AND C	_MAN_OXP_026	
Other PICS				
Initial condi	tion	The simulated agent and the configuration.	ne manager under test are in the ope	erating state using the standard
Test procedure		handle 10 (Pulse Rate	ends a confirmed fixed event report Object) containing an observation v NITY, [exponent 0, mantissa +(2**11	value set to the value for
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Verify that the manager under test is able as if they were an actual measurement (e is displayed in some form that indicates it		al measurement (e.g. if there is a U	I, verify that the measurement	
Notes This test case has been considered as an implicit test case.				

TP Id		TP/PLT/MAN/CLASS/PO/BV-016		
TP label	P label Special values. Positive infinity – variable format			
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 16; C PulseRateNumObjAttr 33; C		
1		Check that: Manager receives a + INFIN value.	NITY value (variable format event re	port) but it does not use this
Applicability C_MAN_OXP_000 AND C_MAN_OXP_026				
Other PICS				

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/PO/BV-017		
TP label		Special values. Negative infinity – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 11; M	PulseRateNumObjAttr 28; M	
Test purpos	e	Check that: Manager receives a - INFIN	IITY value (fixed format event repor	t) but it does not use this value.
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_026		
Other PICS				
Initial condition		The simulated agent and th configuration.	e manager under test are in the ope	erating state using the standard
1. The simulated agent sends a confirmed fixed event report for handle handle 10 (Pulse Rate Object) containing an observation value set to negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0		value set to the value for		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
• Verify that the manager under test is able to accept the data, but do as if they were an actual measurement (e.g. if there is a UI, verify the is displayed in some form that indicates it is not a measurement).		I, verify that the measurement		
Notes	es This test case has been considered as an implicit test case.			

TP ld	P Id TP/PLT/MAN/CLASS/PO/BV-018			
TP label	FP label Special values. Negative infinity – variable format		finity – variable format	
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 16; C PulseRateNumObjAttr 33; C		
Test purpose		Check that: Manager receives a - INFIN value.	IITY value (variable format event report) but it does not use thi	s
Applicability C_MAI		C_MAN_OXP_000 AND C_	MAN_OXP_026	
Other PICS				

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 	
Notes	This test case has been considered as an implicit test case.	

TP Id TP/PLT/MAN/CLASS/PO/BV-019				
TP label	_	Special values. Reserved – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10404]		
	Testable items	SpO2NumObjAttr 11; M	PulseRateNumObjAttr 28; M	
Test purpose	е	Check that:		
		Manager receives a Reservuse this value.	ved for future use value (fixed forma	t event report) but it does not
Applicability	,	C_MAN_OXP_000 AND C_	_MAN_OXP_026	
Other PICS				
Initial condition The simulated agent and the manager under test are in the configuration.		e manager under test are in the ope	erating state using the standard	
 Test procedure The simulated agent sends a confirmed fixed event report for handle 1 (SpO₂ C handle 10 (Pulse Rate Object) containing an observation value set to the value reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801 The simulated agent waits until it receives a confirmation from the manager undil the confirmation from t		value set to the value for -(2**11 -1) = 0x0801]).		
Verify that the manager under test either reports an endoes not use the values as if they were an actual measurement is displayed in some form measurement).		s as if they were an actual measure	ment (e.g. if there is a UI,	
Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/PO/BV-020		
TP label Special values. Reserved – variable format				
Coverage	Spec	[ISO/IEEE 11073-10404]	-	
	Testable items	SpO2NumObjAttr 16; C	SpO2NumObjAttr 16; C PulseRateNumObjAttr 33; C	
Mana		Check that: Manager receives a Reserved not use this value.	for future use value (variable for	mat event report) but it does
Applicability C_MAN_OXP_000 AND C_MAN_OXP_026				

Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (SpO₂ Object) and handle 10 (Pulse Rate Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

A.5 Subgroup 2.3.4: Blood pressure monitor (BPM)

TP ld		TP/PLT/MAN/CLASS/BPM/BV-000		
TP label		Association procedure	Manager BPM	
Coverage	Spec	[ISO/IEEE 11073-1040	7]	
	Testable	ConfProc_4;M	AsProc_14;M	AsProc_15;M
	items	AsProc_16;M	AsProc_17;M	AsProc_18;M
		AsProc_19;M	AsProc_20;M	AsProc_21;M
		AsProc_22;M	AsProc_23;M	AsProc_24;M
		AsProc_25;M		
Test purpos	se	Check that:	,	
		Operation Response 0	oond to a configuration notificat Confirmed Event Report" data r ReportRsp structure for the eve	message with an MDC_NOTI_CONFIG
		[AND]		
		In the association response message sent by the Manager:		
		The result field shall be set to an appropriate response from those defined in ISO/IEEE P11073-20601.		
		[AND]		
		In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601		
		[AND]		
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure		
		[AND]		
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)		
		[AND]		
			oond with a single selected enc he Manager shall support at lea	oding rule that is supported by both ast the MDER encoding rules
		[AND]		

	The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)		
	[AND]		
	The field functional-units shall have all bits reset except for those relating to a Test Association.		
	[AND]		
	The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)		
	[AND]		
	The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier		
	[AND]		
	The field dev-config-id shall be manager-config-response (0)		
	[AND]		
	The field data-req-mode-capab shall be 0		
	[AND]		
	The fields data-req-init-*-count shall be 0		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_020		
Other PICS			
Initial canditian			
Initial condition	The manager is in the unassociated state.		
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:		
	□ protocol-version = '100000000000000000000000000000000000		
	encoding-rules= '100000000000000'B		
	□ nomenclature-version = '100000000000000000000000000000000000		
	☐ functional-units = '00000000000000000000000000000000000		
	□ system-type = '000000001000000000000000000000000000		
	dev-config-id = 16437		
	☐ data-rep-mode-capab =		
	data_req_mode_flags= '000000000000001'B		
	data_req_init_agent_count = 1		
	data_req_init_manager_count =0		
	□ option-list.length=0		
	2. The manager under test sends an association response. The fields of interest are:		
	a. APDU Type		
	☐ field-length = 2 bytes		
	☐ field-value = 0xE3 0x00 (AareApdu)		
	b. Result		
	☐ field- type = AssociateResult		
	☐ field-length = 2 bytes		
	☐ field-value = One of the following:		
	 If association is accepted, field-value=0x00 0x00. 		
	 If association is rejected-permanent, field-value=0x00 0x01. 		
	If association is rejected-transient, field-value=0x00 0x02.		
	If association is accepted-unknown-config, field-value=0x00 0x03.		
	ii association is accepted difficulting, field-value—oxoc oxos.		

	 If association is rejected-no-common-protocol, field-value=0x00 0x04.
	 If association is rejected-no-common-parameter, field-value=0x00 0x05.
	If association is rejected–unknown = 0x00 0x06.
	 If association is rejected-unauthorized, field-value=0x00 0x07.
	 If association is rejected-unsupported-assoc-version, field-value=0x00 0x08.
C.	selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))
d.	data-proto-id
	☐ field- type = DataProtoId
	☐ field-length = 2 bytes
	☐ field-value=0x50 0x79 (20601)
e.	protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
f.	encoding-rules
	☐ field-type = EncodingRules
	ield-length = 2 bytes (BITS-16)
	ifield-value= depends on the encoding rules supported/selected, but only one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
i.	system type
	☐ field- type = SystemType
	ifield-length = 4 bytes (BITS-32)
	field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
j.	system-id
	ield- type = OCTET STRING
	ield-length = 8 bytes
L	ield-value = (EUI-64 manufacturer and device)
k.	dev-config-id
	ield- type = Configld
	ield-length = 2 bytes
	☐ field-value = 0x00 0x00 (manager-config-response)

	1	
	I.	data-req-mode-flags (DataReqModeCapab)
		☐ field- type = DataReqModeFlags
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00
		☐ manager response to data-req-mode-flags is always 0.
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All chec	ked values are as specified in the test procedure.
Notes	Value fo	or protocol-version has been modified according to [ISO/IEEE 11073-20601A].

TP ld		TP/PLT/MAN/CLASS/BPM/BV-001				
TP label		Configuration Event Report. Blood Pressure Meter standard configuration				
Coverage	Spec	[ISO/IEEE 11073-10407]				
	Testable items	MDSEvents 8;M				
	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M				
Test purpos	se	Check that:				
		A blood pressure monitor manager shall respond to an [MDS-Configuration-Event] using a [Confirmed] event report response.				
		The Response shall include the event-reply-info [ConfigReportRsp]				
		[AND]				
		A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.				
			ay request the agent to send the sand check attributes from the MD are agent.			
Applicability C_MAN_OXP_0		C_MAN_OXP_000 AND C_M	AN_OXP_020			
Other PICS						
Initial condition		The simulated agent and the	manager under test are in an una	associated state.		
Test procedure			sends an association request to 0xBC (Blood Pressure Meter).	the manager under test with		
		The manager under test a. Result	responds with an association res	ponse, the field of interest is:		

				field- type = INT-U16
				field-length =2 bytes
				field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)
	If th	ne re	sult (of the association response was "accepted-unknown-config"
	3.	The 0xE		ulated agent sends a configuration event report with config-report-id set to 0x02
	4.	The	e ma	nager under test must respond with:
		a.	AP	DU Type
				field-length =2 bytes
				field-value =0xE7 0x00 (PrstAdpu)
		b.	Inv	oke-id
				field- type = INT-U16
				field-length =2 bytes
				field-value= it must be the same as the invoke-id of the simulated agent's message.
		c.	Obj	-Handle:
				field- type = HANDLE
				field-length =2 bytes
				field-value = 0x00 0x00
		d.	Eve	ent-time:
				field- type = INT-U32
				field-length =4 bytes
				field-value: 0xXX 0xXX
		e.	Eve	ent-type:
				field-length = 2 bytes
				field-value= MDC_NOTI_CONFIG
		f.	The	e following six bytes indicate:
				Event-replay-info.length (2 bytes)
				ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
				ConfigReportRsp.config-result: One of:
				accepted-config: 0x00 0x00
	Wa	it un	til the	e operating state is reached in both cases.
	5.	The	e sim	ulated agent sends a fixed event report with one measurement with:
				event_type = MDC_NOTI_SCAN_REPORT_FIXED
				event_info = ScanReportInfoFixed
				 obs_scan_fixed: Sys-Diast-MAP 120-90-100 mmHg and pulse rate 60 beats/min
Pass/Fail criteria	•			nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
	•	The	e me	asurement is correctly presented.
Notes	Sec	e huc	n http	://continua.plugfests.com/show_bug.cgi?id=123
	056	, ոսն	<u> iiup</u>	#/ornanda.pragrosts.com/snow_bag.cgr:1u=120

TP ld		TP/PLT/MAN/CLASS/BPM/BV-003						
TP label	TP label		Attribute-Value-Map. Order change.					
Coverage	Spec	[ISO/IEEE 11073-10407]						
	Testable items	Syst	Diast_23;M					
Test purpose		For the [e [Attribute-Value-Map] attribute ute shall be MDC_ATTR_NU_C BS				
Applicability Other PICS		C_N	IAN_OXP_000 AND C_MA	N_OXP_020				
Initial condit	ion		simulated agent and the miguration.	anager under test are in the op-	erating state using the standard			
Test procedure			The simulated agent sends a confirmed fixed format event report with a report from handle 1 (Non-invasive blood pressure) that matches the Attribute-Value-Map order of MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, MDC_ATTR_TIME_STAMP_ABS and handle 2 (pulse) that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_TIME_STAMP_ABS					
		2. The simulated agent waits until it receives a confirmation.						
			Value-Map configuration o MDC_ATTR_TIME_STAM MDC_ATTR_NU_CMPD_\	s a confirmed variable event rep f handle 1 to reverse the values P_ABS, then MDC_ VAL_OBS_BASIC and to revers P_ABS, MDC_ATTR_NU_ VAL	to: se handle 2 values to:			
			4. The simulated agent waits until it receives a confirmation.					
			followed by blood pressure is the standard configuration	mat event report with handle 1 very values (in millimetres of mercuon unit code) and handle 2 value minute (MDC_DIM_BEAT_PER	rry (MDC_DIM_MMHG) since it es set to the date first followed			
		6.	The simulated agent waits	until it receives a confirmation.				
		7.	The simulated agent sends	s an association release reques	t (normal).			
		8.	The simulated agent waits	until there is an association rele	ease response.			
			The simulated agent sends that was used previously.	s an association request using t	he same standard configuration			
			If the manager under test r unknown-config", then	responds with association reque	est response with "accepted-			
			The simulated agent s standard configuration	sends the confirmed configuration.	on event report with the			
			The simulated agent v report that was sent.	vaits until there is a confirmation	n to the configuration event			
			standard configuration attri (MDC_ATTR_NU_CMPD_	s a fixed event report for handle ibute-value-format VAL_OBS_BASIC, MDC_ATTF BS_BASIC, MDC_ATTR_TIME	R_TIME_STAMP_ABS) and			
		12.	The simulated agent waits	until it receives a confirmation.				

Pass/Fail criteria	• In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). If the manager only displays the values from handle 1 (non-invasive blood pressure) that is fine since the specification implies that agents nor manager have to support (pulse) but the pulse object must be there in the standard configuration.
	 In steps 2, 6 and 12 verify that the manager under test uses millimetres of mercury as the unit code for the measurement report (or reports the proper value after conversion to another unit code).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
Notes	This may require the simulated agent to provide a proper date-and-time attribute in the MDS object.
	When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.

TP ld		TP/PLT/MAN/CLASS/BPM/BV-004				
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map				
Coverage	Spec	[ISO/IEEE 11073-10407]				
	Testable items	SystDiast_23;M				
Test purpose	9	Check that:				
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present. The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS				
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration. (Non-invasive blood pressure Compound Numeric standard configuration Unit code attribute is set to millimetres of mercury (MDC_DIM_MMHG)).				
Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Non-invasive blood pressure) to set the values to: MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS. For handle 2 (pulse), set the attribute value map to: MDC_ATTR_MSMT_STAT, MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.				
		2. The simulated agent waits until it receives a confirmation.				
		3. Send a confirmed fixed format event report with the new data layout. For the unit-code attribute of handle 1, use MDC_DIM_KILO_PASCAL (3843), for handle 2, use MDC_DIM_BEAT_PER_MIN (2720).				
		4. The simulated agent waits until it receives a confirmation.				
		5. The simulated agent sends a confirmed variable event report with handle 1 reporting just a MDC_ATTR_NU_CMPD_VAL_OBS_BASIC attribute and handle 2 just a MDC_ATTR_NU_VAL_OBS_BASIC.				
		6. The simulated agent waits until it receives a confirmation.				

Pass/Fail criteria	•	In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	•	In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).
	•	In steps 4 and 6, verify that the manager under test uses kilopascals and beats per minute as the unit codes for the measurement reports.
Notes		

TP Id		TP/PLT/MAN/CLASS/BPM/BV-005					
TP label		Unit-Code. Change from default millimetres of mercury (mmHg) to kilopascals (kPa) – fixed format observation.					
Coverage	Spec	[ISO/IEEE 11073-10407]					
	Testable items	SystDiast_21;M					
	Spec	[ITU-T H.810 (2015)]					
	Testable items	Communication 9; M					
Test purpos	se	Check that:					
		For [Standard-Configuration] the [Unit-Code] attri	bute shall be present				
		The value of the [Unit-Code] attribute shall be MD	DC_DIM_MMHG				
		[AND]					
		Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only					
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001					
Other PICS							
Initial condition The simulated agent and the manager under test are in the operating state configuration.		are in the operating state using the standard					
Test procedure		The simulated agent sends a confirmed variation handle 1 (non-invasive blood pressure) to kP MDC_DIM_KILO_PASCAL (3843). NOTE – No need to change handle 2 (pulse)	a nomenclature code				
		2. The simulated agent waits until it receives a confirmation.					
		3. Send a confirmed fixed format event report for (e.g., 16 kPa is 120 mmHg and 10 kPa is 80 and for handle 2 using a measurement in beat stamp.	mmHg) followed by date and time stamp				
		4. The simulated agent waits until it receives a confirmation.					
		5. The simulated agent sends an association release request (normal).					
		6. The simulated agent waits until it receives an association release response.					
		7. The simulated agent sends an association reused initially.	equest using the same configuration that was				
		If the manager under test responds with asso unknown-config", then	ociation request response with "accepted-				

		The simulated agent sends the confirmed configuration event report with the standard configuration.
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9.	The simulated agent sends a fixed event report for handle 1 using a measurement in mmHg followed by date and time stamp and for handle 2 using a measurement in beats per minute followed by date and time stamp.
	10.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	•	In step 4, verify that the manager under test is able to accept the data properly and applies kPa and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	•	In step 10, verify that the manager under test is able to accept the data properly and applies mmHg and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes		

TP ld		TP/PLT/MAN/CLASS/BPM/BV-005_A				
TP label		Unit-Code. Do not change from default millimetres of mercury (mmHg) to kilopascals (kPa) – fixed format observation.				
Coverage	Spec	[ISO/IEEE 11073-10407]				
	Testable items	SystDiast_21;M				
Test purpose	е	Check that:				
		For [Standard-Configuration] the [Unit-Code] attribute shall be present				
		The value of the [Unit-Code] attribute shall be MDC_DIM_MMHG				
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_020 AND (NOT(C_MAN_BPM_001))				
Other PICS						
Initial condit	Initial condition The simulated agent and the manager under test are in the operating state using configuration.					
Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (non-invasive blood pressure) to kPa nomenclature code MDC_DIM_KILO_PASCAL (3843). NOTE – No need to change handle 2 (pulse), since the only option is beats per minute.				
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.				
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report for handle 1 using a measurement in kPa (e.g., 16 kPa is 120 mmHg and 10 kPa is 80 mmHg) followed by date and time stamp and for handle 2 using a measurement in beats per minute followed by date and time stamp.				
		4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.				
		5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.				

Pass/Fail criteria	•	In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rori message.
	•	In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.
Notes		

TP ld		TP/PLT/MAN/CLASS/BPM/BV-006	
TP label		Unit-Code. Use default millimetres of mercury (mmHg) and beats per minute (BPM) – variable format observation.	
Coverage	Spec	[ISO/IEEE 11073-10407]	
	Testable items	SystDiast_21;M	
Test purpos	е	Check that:	
		For [Standard-Configuration] the [Unit-Code] attribute shall be present	
		The value of the [Unit-Code] attribute shall be MDC_DIM_MMHG	
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_020	
Other PICS			
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure		Send a confirmed variable format event report for handle 1 using a measurement in mmHg and for handle 2 using a measurement in beats/min.	
		2. The simulated agent waits until it receives a confirmation.	
Pass/Fail criteria		 Verify that the manager under test is able to accept the data properly and applies mmHg and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 	
Notes			

TP ld		TP/PLT/MAN/CLASS/BPM/BV-	-007	
TP label		Unit-Code. Change from defau variable format observation.	It millimetres of mercury (mmHg) to kilopascals (kPa) –
Coverage	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_21;M		
	Spec	[ITU-T H.810 (2015)]		
	Testable items	Communication 9; M		

Toot numbers	Charle that
Test purpose	Check that:
	For [Standard-Configuration] the [Unit-Code] attribute shall be present
	The value of the [Unit-Code] attribute shall be MDC_DIM_MMHG
	[AND]
	Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	 Send a confirmed variable format event report to set the unit code to kPa MDC_DIM_KILO_PASCAL (3843) for handle 1 (non-invasive blood pressure) and a measurement in kPa. For handle 2, set the unit code to beats per minute MDC_DIM_BEAT_PER_MIN (2720) and a beats/min measurement value.
	2. The simulated agent waits until it receives a confirmation.
	3. Send a second confirmed variable format event report with just a measurement in kPa and beats/min (i.e., do not transmit the unit-code attribute in the event report).
	4. The simulated agent waits until it receives a confirmation.
	5. The simulated agent sends an association release request (normal).
	6. The simulated agent waits until it receives an association release response.
	7. The simulated agent sends an association request using the same configuration that was used initially.
	8. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9. The simulated agent sends a confirmed variable event report for handle 1 with an observation in mmHg (i.e., do not send the unit-code attribute it should be set to mmHg by the standard configuration). For handle 2, use an observation of beats/min.
	10. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	• In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies kPa and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 10, verify that the manager under test is able to accept the data properly and applies mmHg and beats/min to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP ld		TP/PLT/MAN/CLASS/BPM/BV-008
TP label		Metric-id-list. Standard configuration
Coverage	Spec	[ISO/IEEE 11073-10407]
	Testable items	SystDiast_17;M

Test purpose	Check that:
	For [Standard-Configuration] the [Metric-Id-List] attribute shall be present. The value of the [Metric-Id-List] attribute shall be MDC_PRESS_BLD_NONINV_SYS, MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_MEAN.
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_020
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	The simulated agent sends a confirmed variable event report for handle 1 (non-invasive blood pressure object) containing an observation with the compound field values (SFLOAT) set to (120.0, 80.0, 93.3) and for handle 2 containing an observation (SFLOAT) of 60.0.
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test is able to accept the data and applies the data properly as systolic = 120.0, diastolic = 80.0, mean arterial pressure (MAP) = 93.3, and pulse = 60.0.
Notes	If there are no other tests for various different FLOAT and SFLOAT values, the values above at least help cover the negative exponent values (e.g. 120.0 is 0xF4B0 as the SFLOAT).

TP ld		TP/PLT/MAN/CLASS/BPM/BV-009		
TP label		Metric-id-list. Id order change – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_17;M		
Test purpose	е	Check that:		
		For [Standard-Configuration] the [Metric-Id-List] attribute shall be present. The value of the [Metric-Id-List] attribute shall be MDC_PRESS_BLD_NONINV_SYS, MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_MEAN.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_020		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed variable event report for handle 1 (non-invasive blood pressure object) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_PRESS_BLD_NONINV_MEAN, MDC_PRESS_BLD_NONINV_SYS, then MDC_PRESS_BLD_NONINV_DIA).		
		2. The simulated agent sends a confirmed fixed event report for handle 1 containing an observation with the compound field values (SFLOAT) set to (106.6, 140.0, 90.0) along with a known time stamp, and Pulse Rate of 60 beats/min along with a known time stamp.		
		3. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail cri	teria	• Verify that the manager under test is able to accept the data and time stamp and applies the data properly as systolic = 140.0, diastolic = 90.0, MAP = 106.6.		
Notes				

TP ld		TP/PLT/MAN/CLASS/BPM/BV-010		
TP label		Metric-id-list. Id order change – variable format		
Coverage	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_17;M		
Test purpose		Check that: For [Standard-Configuration] the [Metric-Id-List] attribute shall be present. The value of the [Metric-Id-List] attribute shall be MDC_PRESS_BLD_NONINV_SYS, MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_MEAN.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_020		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1 (non-invasive blood pressure object) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_PRESS_BLD_NONINV_DIA, MDC_PRESS_BLD_NONINV_MEAN, then MDC_PRESS_BLD_NONINV_SYS) in the first observation scan. In a second observation scan, for handle 1 set the compound field values (SFLOAT) to (74.0, 86.0, 110.0) along with a known time stamp.		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data and time stamp and applies the data properly as systolic = 110.0, diastolic = 74.0, MAP = 86.0.		
Notes				

TP ld		TP/PLT/MAN/CLASS/BPM/BV-011	
TP label		Metric-id-list. Reduced ids – fixed format	
Coverage	Spec	[ISO/IEEE 11073-10407]	
	Testable items	SystDiast_17;M	
Test purpos	е	Check that:	
		For [Standard-Configuration] the [Metric-Id-List] attribute shall be present. The value of the [Metric-Id-List] attribute shall be MDC_PRESS_BLD_NONINV_SYS, MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_MEAN.	
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_020	
Other PICS			
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (non-invasive blood pressure object) setting MDC_ATTR_METRIC_STRUCT_SMALL to {ms-struct-compound-fix, 2}, MDC_ATTR_ID_PHYSIO_LIST to (MDC_PRESS_BLD_NONINV_SYS, then MDC_PRESS_BLD_NONINV_DIA) and MDC_ATTR_ATTRIBUTE_VAL_MAP to {MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, 8, MDC_ATTR_TIME_STAMP_ABS, 8}. 	

	2.	The simulated agent sends a confirmed fixed event report for handle 1 containing an observation with the compound field values (SFLOAT) set to (135.5, 86.3) along with a known time stamp.
	3.	The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	•	Verify that the manager under test is able to accept the data and time stamp and applies the data properly as systolic = 135.5, diastolic = 86.3.
Notes		

TP ld		TP/PLT/MAN/CLASS/BPM/BV-012		
TP label		Metric-id-list. Reduced ids – variable format		
Coverage	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_17;M		
Test purpose		Check that: For [Standard-Configuration] the [Metric-Id-List] attribute shall be present. The value of the [Metric-Id-List] attribute shall be MDC_PRESS_BLD_NONINV_SYS, MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_MEAN.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_020		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed variable event report for handle 1 (non-invasive blood pressure object) setting MDC_ATTR_METRIC_STRUCT_SMALL to {ms-struct-compound-fix, 2} and MDC_ATTR_ID_PHYSIO_LIST to (MDC_PRESS_BLD_NONINV_DIA, then MDC_PRESS_BLD_NONINV_SYS).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
		3. The simulated agent sends a confirmed variable event report for handle 1 containing an observation with the compound field values (SFLOAT) set to (150.0, 95.0) along with a known time stamp.		
		4. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data and time stamp and applies the data properly as systolic = 150.0, diastolic = 95.0. 		
Notes				

TP ld		TP/PLT/MAN/CLASS/BPM/BV-013	
TP label		Maximum APDU size: Blood Pressure Meter	
Coverage	Spec	[ISO/IEEE 11073-20601A]	
	Testable items	CommonCharac 4;M	

Test purpose	Check that:
	If a manager receives APDU that is larger than the manager's receive buffer, it shall reply
	with an error (roer) code of protocol-violation.
	The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitiations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_020
Other PICS	
Initial condition	The manager under test is in the operating state.
Test procedure	The simulated agent sends a Confirmed variable event report:
	a. ScanReportInfoVar. obs_scan_var:
	☐ Count =2
	☐ Length = 856
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 61441
	attribute-value: '00(824 bytes) 00'0
	}
	}
	}
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 2677 (MDC_ATTR_NU_CMPD_VAL_OBS_BASIC)
	attribute-value: (130 / 85 / 100)
	}
	}
	}
	Check the response of the manager under test.
	The simulated agent sends a confirmed fixed event report with one measurement.
	Check the response of the manager under test.
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes	

TP ld	TP/PLT/MAN/CLASS/BPM/BV-014
TP label	Special values. Not a number – fixed format

Coverage	Spec	[ISO/IEEE 11073-10407]			
	Testable items	SystDiast_23; M	PulsRat_22; M		
Test purpose		Check that: Manager receives a NaN value	e (fixed format event report) but i	t does not use this value.	
Applicability		C_MAN_OXP_000 AND C_MA	AN_OXP_020		
Other PICS					
Initial conditi	ion	The simulated agent and the n configuration.	nanager under test are in the ope	erating state using the standard	
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).			
Notes This test case has been considered as an implicit test case.					

TP Id		TP/PLT/MAN/CLASS/BPM/BV-015			
TP label		Special values. Not a	number – variable format		
Coverage	Spec	[ISO/IEEE 11073-104	407]		
	Testable items	SystDiast_45; C	PulsRat_42; M		
Test purpos	e	Check that: Manager receives a NaN value (variable format event report) but it does not use this value.			
Applicability	1	C_MAN_OXP_000 A	ND C_MAN_OXP_020		
Other PICS					
Initial condit	tion	The simulated agent configuration.	and the manager under test are in the ope	erating state using the standard	
Test proced	ure	 The simulated agent sends a confirmed variable event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes This test case has been considered as an implicit test case.					

TP Id		TP/PLT/MAN/CLASS/BPM/BV-016		
TP label	P label Special values. Not at this resolution – fixed format			
Coverage	Spec	[ISO/IEEE 11073-1040	7]	
	Testable items	SystDiast_23; M	PulsRat_22; M	
Test purpos	ie	Check that:		
		Manager receives NRe	s value (fixed format event report) but	t does not use this value.
Applicability	y	C_MAN_OXP_000 ANI	O C_MAN_OXP_020	
Other PICS				
Initial condi	tion	The simulated agent an configuration.	nd the manager under test are in the op	perating state using the standard
Test procedure 1. The simulated agent sends a confirmed fixed event report for handle (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate) containing values set to the value for NRes ([exponent 0, mantissa –(2**11) = 0 stamp.		e) containing all observation -(2**11) = 0x0800]) and a time		
2. The simulated agent waits until it receives a confirmation from the ma		from the manager under test.		
• Verify that the manager under test is able to accept the data, but doe as if they were an actual measurement (e.g. if there is a UI, verify the is displayed in some form that indicates it is not a measurement).		JI, verify that the measurement		
Notes This test case has been considered as an implicit test case.				

TP Id		TP/PLT/MAN/CLASS/BF	PM/BV-017			
TP label		Special values. Not at th	Special values. Not at this resolution – variable format			
Coverage	age Spec [ISO/IEEE 11073-10407]			_		
	Testable items	SystDiast_45; C	PulsRat_42; M			
Test purpos	е	Check that: Manager receives NRes	Check that: Manager receives NRes value (variable format event report) but it does not use this value.			
Applicability	,	C_MAN_OXP_000 AND	C_MAN_OXP_020			
Other PICS						
Initial condit	ion	The simulated agent and configuration.	d the manager under test are i	in the operating state using the standard		
(Sy		(Systolic/Diastolic/M observation values s	set to the value for NRes ([exp	lse Rate Object) containing all ponent 0, mantissa –(2**11) = 0x0800]).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).				
Notes This test case has been		This test case has been	considered as an implicit test	case.		

TP Id		TP/PLT/MAN/CLASS/BPM/BV-018			
TP label		Special values. Positive infinity – fixed format			
Coverage	Spec	[ISO/IEEE 11073-1040	07]		
	Testable items	SystDiast_23; M	PulsRat_22; M		
Test purpose	9	Check that: Manager receives a + INFINITY value (fixed format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AN	ID C_MAN_OXP_020		
Other PICS					
Initial condit	ion	The simulated agent a configuration.	nd the manager under test are in the ope	erating state using the standard	
Test procedure		1. The simulated agent sends a confirmed fixed event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp.			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes		This test case has been considered as an implicit test case.			

TP Id		TD/DLT/MAAN/OLAGO/DDM/DV/ 040			
IF IU		TP/PLT/MAN/CLASS/BPM/BV-019			
TP label		Special values. Positive	infinity – variable format		
Coverage	Spec	[ISO/IEEE 11073-10407	1		
	Testable items	SystDiast_45; C	PulsRat_42; M		
Test purpos	e	Check that:			
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.			
Applicability	y	C_MAN_OXP_000 AND	C_MAN_OXP_020		
Other PICS					
Initial condi	tion	The simulated agent and configuration.	d the manager under test are	e in the operating state using the standard	
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]).			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).			

Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/BPM/BV-020			
TP label		Special values. Negative infinity – fixed format			
Coverage	Spec	[ISO/IEEE 11073-1040			
	Testable items	SystDiast_23; M	PulsRat_22; M		
Test purpos	se	Check that:			
		Manager receives a - IN	NFINITY value (fixed format even	t report) but it does not use this value.	
Applicabilit	у	C_MAN_OXP_000 AND	O C_MAN_OXP_020		
Other PICS					
Initial cond	ition	The simulated agent an configuration.	d the manager under test are in	the operating state using the standard	
Test procedure 1. The simulated agent sends a confirmed fixed event report f (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Cobservation values set to the value for negative infinity (–IN mantissa –(2**11 –2) = 0x0802]) and a time stamp.		Rate Object) containing all			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case has been considered as an implicit test case.		ase.			

TP Id TP/PLT/MAN/CLASS/BPM/BV-021					
TP label		Special values. Negative infinity – variable format			
Coverage Spec		[ISO/IEEE 11073-10407]			
	Testable items	SystDiast_45; C	PulsRat_42; M		
Test purpose		Check that: Manager receives a - INFINITY value (variable format event report) but it does not use this value.			
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_020			
Other PICS					
Initial condi	tion	The simulated agent and the configuration.	manager under test are in the ope	erating state using the standard	
Test procedure		The simulated agent sends a confirmed variable event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate) containing all observation values set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 – 2) = 0x0802]).			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/BPM/BV-022		
TP label Special values. Reserved – fixed format				
Coverage	Spec	[ISO/IEEE 11073-104	107]	
	Testable items	SystDiast_23; M	PulsRat_22; M	
Test purpos	se .	Check that:		
		Manager receives a Fuse this value.	Reserved for future use value (fixed forma	t event report) but it does not
Applicability	у	C_MAN_OXP_000 A	ND C_MAN_OXP_020	
Other PICS				
Initial condi	tion	The simulated agent a configuration.	and the manager under test are in the ope	erating state using the standard
Test procedure 1. The simulated agent sends a confirmed fixed event report for ha (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate) conta values set to the value for reserved (Reserved for future use, [example of the contact of the value for reserved (Reserved for future use, [example of the contact of the value for reserved (Reserved for future use, [example of the contact of the value for reserved (Reserved for future use, [example of the value for reserved for future use, [example of the value for future use, [example of the value for reserved for future use, [example of the value for future use, [e		containing all observation		
2. The simulated agent waits until it receives a		gent waits until it receives a confirmation f	rom the manager under test.	
Verify that the manager under test either report does not use the values as if they were an activerify that the measurement is displayed in some measurement).		values as if they were an actual measure	ment (e.g. if there is a UI,	
Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/BPM/BV-023			
TP label		Special values. Reserved – variable format			
Coverage Spec		[ISO/IEEE 11073-10407]			
	Testable items	SystDiast_45; C	PulsRat_42; M		
Test purpos	se	Check that:			
		Manager receives a Renot use this value.	eserved for future use value (varia	able format event report) but it does	
Applicability		C_MAN_OXP_000 AN	D C_MAN_OXP_020		
Other PICS					
Initial condition		The simulated agent ar configuration.	nd the manager under test are in	the operating state using the standard	

Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

A.6 Subgroup 2.3.5: Thermometer (TH)

TP Id		TP/PLT/MAN/CLASS/TH/BV-003			
TP label		Association procedure Manager TH			
Coverage	Spec	[ISO/IEEE 11073-10408]			
	Testable items	TH_ CM_Assoc10 ;M		TH_ CM_Assoc15 ;M	
	items	TH_ CM_Assoc16 ;M	TH_ CM_Assoc17 ;M	TH_ CM_Assoc18 ;M	
		TH_ CM_Assoc19 ;M	TH_ CM_Assoc20 ;M		
Test purpose)	Check that:			
		The Manager may use this field to determine the identity of the thermometer with which it is associating and, optionally, to implement a simple access restriction policy			
		[AND]			
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure			
		[AND]			
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)			
		[AND]			
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules			
		[AND]			
		The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)			
		[AND]			
		The field functional-units shall have all bits reset except for those relating to a Test Association.			
		[AND]			
		The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)			
		[AND]			
		The fields data-req-mode-capab, data-req-init-agent, data-req-init-manage the agent supports only the thermometer specialization data-req-init-agent			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025			
Other PICS					

Initial condition	The manager is in the unassociated state.
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:
	□ protocol-version = '100000000000000000000000000000000000
	☐ encoding-rules= '100000000000000'B
	□ nomenclature-version = '100000000000000000000000000000000000
	☐ functional-units = '00000000000000000000000000000000000
	□ system-type = '000000001000000000000000000000000000
	☐ dev-config-id = 16447
	☐ data-rep-mode-capab =
	data_req_mode_flags= '00000000000001'B
	data_req_init_agent_count = 1
	data_req_init_manager_count =0
	□ option-list.length=0
	2. The manager under test sends an association response. The fields of interest are:
	a. APDU Type
	☐ field-length = 2 bytes
	☐ field-value = 0xE3 0x00 (AareApdu)
	b. Result
	☐ field- type = AssociateResult
	☐ field-length = 2 bytes
	☐ field-value = One of the following:
	 If association is accepted, field-value=0x00 0x00.
	 If association is rejected-permanent, field-value=0x00 0x01.
	 If association is rejected-transient, field-value=0x00 0x02.
	 If association is accepted-unknown-config, field-value=0x00 0x03.
	 If association is rejected-no-common-protocol, field-value=0x00 0x04.
	 If association is rejected-no-common-parameter, field-value=0x00 0x05.
	 If association is rejected—unknown = 0x00 0x06.
	 If association is rejected-unauthorized, field-value=0x00 0x07.
	 If association is rejected—unsupported-assoc-version, field-value=0x00 0x08.
	 selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))
	d. data-proto-id
	☐ field- type = DataProtoId
	☐ field-length = 2 bytes
	☐ field-value=0x50 0x79 (20601)
	e. protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
	f. encoding-rules
	☐ field-type = EncodingRules

		☐ field-length = 2 bytes (BITS-16)
		☐ field-value= depends on the encoding rules supported/selected, but only one
		can be supported at a time
	g.	nomenclature version
		☐ field- type = NomenclatureVersion
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value= Bit 0 must be set (nom-version1)
	h.	functional units
		☐ field-type = FunctionalUnits
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value =
		Bit 0 must be 0
		 Bits 1 and 2 may be set
		 The rest of the bits must not be set
	i.	system type
		☐ field- type = SystemType
		☐ field-length = 4 bytes (BITS-32)
		$\Box \text{field-value} = 0x80\ 0x00\ 0x00\ 0x00\ (\text{sys-type-manager})$
	j.	system-id
		☐ field- type = OCTET STRING
		☐ field-length = 8 bytes
		☐ field-value = (EUI-64 manufacturer and device)
	k.	dev-config-id
		☐ field- type = Configld
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00 (manager-config-response)
	l.	data-req-mode-flags (DataReqModeCapab)
		☐ field- type = DataReqModeFlags
		☐ field-length = 2 bytes
		$\Box \text{field-value} = 0x00 \ 0x00$
		☐ manager response to data-req-mode-flags is always 0.
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All chec	ked values are as specified in the test procedure.
Notes	Value fo	or protocol-version has been modified according to [ISO/IEEE 11073-20601A].

TP ld		TP/PLT/MAN/CLASS/TH/BV-004		
TP label		Configuration Event Report. Thermometer standard configuration		
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	Co	nfEv	entRep 18;M
Test purpose	9	Ch	eck t	hat:
		sta	ndar	ger that supports one (or more) of the ISO/IEEE 11073-104zz device specialization ds shall be able to accept all the standard device configurations specified for the listed in conformance Table 23 under Gen-4.
		Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.		
Applicability		C_	MAN	_OXP_000 AND C_MAN_OXP_025
Other PICS				
Initial condit	ion	The	e sim	nulated agent and the manager under test are in an unassociated state.
Test procedu	ure	1.		e simulated agent test sends an association request to the manager under test with y-config-id set to 0x03 0x20 (Thermometer).
		2.	The	e manager under test responds with an association response, the field of interest is:
			a.	Result
				ield- type = INT-U16
				ield-length =2 bytes
				ifield-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)
		If the result of the association response was "accepted-unknown-config" 3. The simulated agent sends a configuration event report with configuration event report with configuration and the configuration event report with event report report with event report report with event report report with event report rep		
		3.	The 0x2	e simulated agent sends a configuration event report with config-report-id set to 0x03 20.
		4.	The	e manager under test must respond with:
			a.	APDU Type
				☐ field-length =2 bytes
				☐ field-value =0xE7 0x00 (PrstAdpu)
			b.	Invoke-id
				☐ field- type = INT-U16
				☐ field-length =2 bytes
				field-value= it must be the same as the invoke-id of the simulated agent's message.
			c.	Obj-Handle:
				☐ field- type = HANDLE
				☐ field-length =2 bytes
				$\Box \text{field-value} = 0x00 \ 0x00$
			d.	Event-time:
				☐ field- type = INT-U32
				☐ field-length =4 bytes
				☐ field-value: 0xXX 0xXX
			e.	Event-type:
				☐ field-length = 2 bytes

	☐ field-value= MDC_NOTI_CONFIG	
	f. The following six bytes indicate:	
	☐ Event-replay-info.length (2 bytes)	
	 ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message 	
	☐ ConfigReportRsp.config-result: One of:	
	accepted-config: 0x00 0x00	
	Wait until the operating state is reached in both cases.	
	5. The simulated agent sends a fixed event report with one measurement.	
Pass/Fail criteria	 The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config". The measurement is correctly presented. 	
Notes		

TP ld		TP/PLT/MAN/CLASS/TH/BV-005			
TP label		Maximum APDU size: Thermometer			
Coverage	Spec	[ISO/IEEE 11073-20601A]			
	Testable items	CommonCharac 4;M			
Test purpose		Check that: If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation. The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitiations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.			
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_025			
Other PICS					
Initial condi	tion	The manager under test is in the operating state.			
Test proced	lure	 The simulated agent sends a Confirmed variable event report: a. ScanReportInfoVar. obs_scan_var: 			
		□ Count =2			
		☐ Length = 856			
		ObservationScan ::= {			
		obj-handle: 1			
		attributes: AttributeList ::= {			
		AVA-Type ::= {			
		attribute-id: 61441			
		attribute-value:			
		}			
		}			
		}			

	ObservationScan ::= {	
	obj-handle: 1	
	attributes: AttributeList ::= {	
	AVA-Type ::= {	
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)	
	attribute-value: 36	
	}	
	}	
	}	
	2. Check the response of the manager under test.	
	3. The simulated agent sends a Confirmed fixed event report with one measurement.	
	4. Check the response of the manager under test.	
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
	step 1 andanager and a test meet topoliting	
Notes		

TP ld		TP/PLT/MAN/CLASS/TH/BV-006		
TP label		Attribute-Value-Map. Order change.		
Coverage	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp17;M		
Test purpose		Check that:		
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_025		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS. A confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS.		
		2. The simulated agent waits until it receives a confirmation.		
		3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Body Temperature Object) to reverse the values to: MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC.		
1		4. The simulated agent waits until it receives a confirmation.		
		5. Send a confirmed fixed format event report with the date first followed by a body temperature value (in Celsius degrees since it is the standard configuration unit code).		
		6. The simulated agent waits until it receives a confirmation.		
		7. The simulated agent sends an association release request (normal).		

8. The simulated agent waits until there is an association release response.9. The simulated agent sends an association request using the same standard conf that was used previously.	
	nted-
 If the manager under test responds with association request response with "acce unknown-config", then 	piou
 The simulated agent sends the confirmed configuration event report with the standard configuration. 	
The simulated agent waits until there is a confirmation to the configuration ever report that was sent.	vent
11. The simulated agent sends a fixed event report following the standard configurati attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS). The observation should be a reasonable Cels degrees body temperature observation.	
12. The simulated agent waits until it receives a confirmation.	
In steps 2, 6 and 12 verify that the manager under test is able to accept the data and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify the measurement and date are displayed properly).	
 In steps 2, 6 and 12 verify that the manager under test uses Celsius degrees as t code for the measurement report (or reports the proper value after conversion to unit code). 	
 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the accobservation may have occurred sometime in the past). 	
 When automated, it is necessary to be careful about sending these messages ba back since the ability to look at things like an UI may require that there be pauses operator verification. 	
Notes	

TP ld		TP/PLT/MAN/CLASS/TH/BV-007		
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp17;M		
Test purpose	•	Check that:		
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_ABS		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025 AND C_MAN_TH_001		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration. (Body Temperature Numeric standard configuration Unit code attribute is set to MDC_DIM_DEGC).		
Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 (Body Temperature Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.		
		2. The simulated agent waits until it receives a confirmation.		

	3.	Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use MDC_DIM_FAHR (4416).
	4.	The simulated agent waits until it receives a confirmation.
	5.	The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC attribute.
	6.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	•	In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	•	In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).
	•	In steps 4 and 6, verify that the manager under test uses Fahrenheit degrees as the unit code for the measurement reports.
Notes		

TP ld		TP/	PLT/MAN/CLASS/TH/BV-0	008	
TP label Unit-Code. Change from default Celsius degrees to Fahrenheit degrees – fix observation.		degrees – fixed format			
Coverage	Spec	[ISO	D/IEEE 11073-10408]		
	Testable items	Nur	n Objec Temp15;M		
	Spec	[ITU	J-T H.810 (2015)]		
	Testable items	Cor	nmunication 9; M		
Test purpos	se	Che	eck that:		
		For	[Standard-Configuration] t	he [Unit-Code] attribute shall be	present
			The value of the [Unit-Code] attribute shall be MDC_DIM_DEGC		
		[AND]			
			ntinua PAN client compone change to future measurer	nts that receive a report of a con ments only	figuration change shall apply
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025 AND C_MAN_TH_001			
Other PICS					
Initial condition			simulated agent and the r	manager under test are in the ορφ	erating state using the standard
Test procedure		 The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Temperature Object) to Fahrenheit nomenclature code MDC_DIM_FAHR (4416). 			
		2.	The simulated agent waits	s until it receives a confirmation.	
		3.	Send a confirmed fixed fo followed by date and time	rmat event report using a measu stamp.	rement in Fahrenheit degrees
		4.	The simulated agent waits	s until it receives a confirmation.	
		5.	The simulated agent send	ds an association release reques	t (normal).
		6.	The simulated agent waits	s until it receives an association r	release response.

	7.	The simulated agent sends an association request using the same configuration that was used initially.
	8.	If the manager under test responds with association request response with "accepted-unknown-config", then
		 The simulated agent sends the confirmed configuration event report with the standard configuration.
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9.	The simulated agent sends a fixed event report with an observation in Celsius degrees followed by date and time stamp.
	10.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	•	In step 4, verify that the manager under test is able to accept the data properly and applies Fahrenheit degrees to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	•	In step 10, verify that the manager under test is able to accept the data properly and applies Celsius degrees to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes		

TP Id		TP/PLT/MAN/CLASS/TH/BV-008_A		
TP label		Unit-Code. Do not change from default Celsius degrees to Fahrenheit degrees – fixed format observation.		
Coverage	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp15;M		
Test purpos	se .	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_DEGC		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_025 AND (NOT(C_MAN_TH_001))		
Other PICS				
Initial condi	dition The simulated agent and the manager under test are in the operating state using the configuration.			
Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Temperature Object) to Fahrenheit nomenclature code MDC_DIM_FAHR (4416).		
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.		
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in Fahrenheit degrees followed by date and time stamp.		
		4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.		
		5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.		

Pass/Fail criteria	•	In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.
Notes		

TP Id		TP/PLT/MAN/CLASS/TH/BV-009		
TP label	TP label Unit-Code. Use default Celsius degrees – variable format observation.		ervation.	
Coverage	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp15;M	Communication 9; M	
Test purpose		Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_DEGC		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		 Send a confirmed variable format event report using a measurement in Celsius degrees. The simulated agent waits until it receives a confirmation. 		
Pass/Fail criteria		degrees to the observa	r under test is able to accept the dation (e.g. if there is a UI, verify that n if they are converted to a differen	the measurement and date are
Notes				

TP ld		TP/PLT/MAN/CLASS/TH/BV-010		
TP label		Unit-Code. Change from default Celsius degrees to Fahrenheit degrees – variable format observation.		
Coverage	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp15;M		
	Spec	[ITU-T H.810 (2015)]		
	Testable items	Communication 9; M		

Test purpose	Check that:
	For [Standard-Configuration] the [Unit-Code] attribute shall be present
	The value of the [Unit-Code] attribute shall be MDC_DIM_DEGC
	[AND]
	Continua PAN client components that receive a report of a configuration change shall apply the change to future measurements only
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_025 AND C_MAN_TH_001
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	 Send a confirmed variable format event report to set the unit code to Fahrenheit degrees MDC_DIM_FAHR (4416) for handle 1 (Body Temperature Object) and a measurement in Fahrenheit degrees.
	2. The simulated agent waits until it receives a confirmation.
	3. Send a second confirmed variable format event report with just a measurement in Fahrenheit degrees (i.e., do not transmit the unit-code attribute in the event report).
	4. The simulated agent waits until it receives a confirmation.
	5. The simulated agent sends an association release request (normal).
	6. The simulated agent waits until it receives an association release response.
	7. The simulated agent sends an association request using the same configuration that was used initially.
	8. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9. The simulated agent sends a confirmed variable event report with an observation in Celsius degrees followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to Celsius degrees by the standard configuration).
	10. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	• In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies Fahrenheit degrees to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 10, verify that the manager under test is able to accept the data properly and applies Celsius degrees to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).

TP ld		TP/PLT/MAN/CLASS/TH/BV-011
TP label		Special values. Not a number – fixed format
Coverage	Spec	[ISO/IEEE 11073-10408]
	Testable items	Num Objec Temp17; M

Test purpose	Check that:
	Manager receives a NaN value (fixed format event report) but it does not use this value.
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_025
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (Body Temperature Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp.
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/TH/BV-012
TP label		Special values. Not a number – variable format
Coverage	Spec	[ISO/IEEE 11073-10408]
	Testable items	Num Objec Temp21; C
Test purpos	e	Check that: Manager receives a NaN value (variable format event report) but it does not use this value.
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_025
Other PICS		
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).
Notes		This test case has been considered as an implicit test case.

TP Id	TP/PLT/MAN/CLASS/TH/BV-013
TP label	Special values. Not at this resolution – fixed format

Coverage	Spec	[ISO/IEEE 11073-10408]
	Testable items	Num Objec Temp17; M
Test purpose		Check that:
		Manager receives NRes value (fixed format event report) but it does not use this value.
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025
Other PICS		
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure		The simulated agent sends a confirmed fixed event report for handle 1 (Body Temperature Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]) and a time stamp.
		2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes		This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/TH/BV-014
TP label		Special values. Not at this resolution – variable format
Coverage	Spec	[ISO/IEEE 11073-10408]
	Testable items	Num Objec Temp21; C
Test purpose		Check that: Manager receives NRes value (variable format event report) but it does not use this value.
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025
Other PICS		
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]). The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes		This test case has been considered as an implicit test case.

TP ld	TP/PLT/MAN/CLASS/ TH /BV-015
TP label	Special values. Positive infinity – fixed format

Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp17; M				
Test purpose		Check that: Manager receives a + INFINITY value (fixed format event report) but it does not use this value.				
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Body Temperature Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 				
Pass/Fail criteria		Verify that the manager ur as if they were an actual n	nder test is able to accept the dat neasurement (e.g. if there is a UI that indicates it is not a measure	ta, but does not use the values l, verify that the measurement		
Notes		This test case has been consid	lered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/TH/BV-016				
TP label		Special values. Positive infinity – variable format				
Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp21; C				
Test purpos	e	Check that:				
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.				
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 				
Notes		This test case has been considered as an implicit test case.				

TP Id		TP/PLT/MAN/CLASS/TH/BV-017				
TP label		Special values. Negative infinity – fixed format				
Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp17; M				
Test purpos	se	Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.				
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1(Body Temperature Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 				
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).				
Notes		This test case has been considered as an implicit test case.				

TP Id		TP/PLT/MAN/CLASS/TH/BV-018				
TP label		Special values. Negative infinity – variable format				
Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp21; C				
Test Purpos	se	Check that:				
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.				
Applicability	у	C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 				
Notes		This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/TH/BV-019				
TP label		Special values. Reserved – fixed format				
Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp17; M				
Test purpose	e	Check that:				
		Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.				
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Body Temperature Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp. 				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 				
Notes		This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/TH/BV-020				
TP label		Special values. Reserved – variable format				
Coverage	Spec	[ISO/IEEE 11073-10408]				
	Testable items	Num Objec Temp21; C				
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does not use this value.				
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_025				
Other PICS						
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). 				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).				

Notes	This test case has been considered as an implicit test case.

A.7 Subgroup 2.3.6: Cardiovascular (CV)

TP ld		TP/PLT/MAN/CLASS/CV/BV-002					
TP label		Association procedure I	Manager CV				
Coverage	Spec	[IEEE 11073-10441]	[IEEE 11073-10441]				
	Testable	AssocResp1;M	AssocResp2;M	AssocResp3;M			
	items	AssocResp4;M	AssocResp5;M	AssocResp6;M			
		AssocResp7;M	AssocResp8;M	AssocResp9;M			
			• •				
		AssocResp10;M	AssocResp11;M	AssocResp12;M			
Test purpos	se	Check that:					
			nse message sent by the Mana				
		The result field shall be P11073-20601.	set to an appropriate response	from those defined in ISO/IEEE			
		[AND]					
		In the DataProtoList struid-20601	ucture element, the data protoco	ol identifier shall be set to data-proto-			
		[AND]					
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure					
		[AND]					
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)					
		[AND]					
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules					
		[AND]					
		The version of the nome version = 0x80000000)	enclature used shall be set to no	om-version1 (i.e., nomenclature-			
		[AND]					
		The field functional-units shall have all bits reset except for those relating to a Test Association.					
		[AND]					
		The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)					
		[AND]					
		The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier					
		[AND]					
		The field dev-config-id shall be manager-config-response (0)					
		[AND]					
		The field data-req-mode-capab shall be 0					
		[AND]					
		The fields data-req-init-*-count shall be 0					

Other PICS				
Initial condition	The manager is in the unassociated state.			
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:			
	□ protocol-version = '100000000000000000000000000000000000			
	☐ encoding-rules= '10000000000000'B			
	□ nomenclature-version = '100000000000000000000000000000000000			
	☐ functional-units = '00000000000000000000000000000000000			
	□ system-type = '000000001000000000000000000000000000			
	dev-config-id = 16438			
	☐ data-rep-mode-capab =			
	data_req_mode_flags= '00000000000001'B			
	data_req_init_agent_count = 1			
	data_req_init_manager_count =0			
	☐ option-list.length=0			
	2. The manager under test sends an association response. The fields of interest are:			
	a. APDU Type			
	☐ field-length = 2 bytes			
	☐ field-value = 0xE3 0x00 (AareApdu)			
	b. Result			
	☐ field- type = AssociateResult			
	☐ field-length = 2 bytes			
	☐ field-value = One of the following:			
	 If association is accepted, field-value=0x00 0x00. 			
	 If association is rejected-permanent, field-value=0x00 0x01. 			
	 If association is rejected-transient, field-value=0x00 0x02. 			
	 If association is accepted-unknown-config, field-value=0x00 0x03. 			
	 If association is rejected-no-common-protocol, field-value=0x00 0x04. 			
	 If association is rejected-no-common-parameter, field-value=0x00 0x05. 			
	 If association is rejected—unknown = 0x00 0x06. 			
	 If association is rejected-unauthorized, field-value=0x00 0x07. 			
	 If association is rejected–unsupported-assoc-version, field-value=0x00 0x08. 			
	c. selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))			
	d. data-proto-id			
	☐ field- type = DataProtoId			
	☐ field-length = 2 bytes			
	☐ field-value=0x50 0x79 (20601)			
	e. protocol-version			
	field- type = Protocol Version			
	☐ field-length = 4 bytes (BITS-32)			
	☐ field-value=0x80 0x00 0x00 0x00			

	f.	enc	roding-rules
			field-type = EncodingRules
		_	field-length = 2 bytes (BITS-16)
			field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
	g.	non	nenclature version
			field- type = NomenclatureVersion
			field-length = 4 bytes (BITS-32)
			field-value= Bit 0 must be set (nom-version1)
	h.	fun	ctional units
			field-type = FunctionalUnits
			field-length = 4 bytes (BITS-32)
			field-value =
			■ Bit 0 must be 0
			■ Bits 1 and 2 may be set
			 The rest of the bits must not be set
	i.	sys	tem type
			field- type = SystemType
			field-length = 4 bytes (BITS-32)
			field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j.	sys	tem-id
			field- type = OCTET STRING
			field-length = 8 bytes
			field-value = (EUI-64 manufacturer and device)
	k.	dev	r-config-id
			field- type = Configld
			field-length = 2 bytes
			field-value = 0x00 0x00 (manager-config-response)
	I.	data	a-req-mode-flags (DataReqModeCapab)
			field- type = DataReqModeFlags
			field-length = 2 bytes
			field-value = 0x00 0x00
			manager response to data-req-mode-flags is always 0.
	m.	data	a-req-init-agent-count (DataReqModeCapab)
			field- type = INT-U8
			field-length = = 1 byte
			field-value = 0x00
	n.	data	a-req-init-manager-count (DataReqModeCapab)
			field- type = INT-U8
			field-length = = 1 byte
			field-value = 0x00
Pass/Fail criteria	All chec	ked '	values are as specified in the test procedure.
Notes	Value fo	r pro	otocol-version has been modified according to [ISO/IEEE 11073-20601A].

TP ld		TP/PLT/MAN/CLASS/CV/BV-003							
TP label		Maximum APDU size: Cardiovascular							
Coverage	Spec	[ISO/IEEE 11073-20601A]							
	Testable items	CommonCharac 4;M							
Test purpose	e	Check that:							
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.							
		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitiations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.							
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_023 AND NOT(C_MAN_CV_030)							
Other PICS									
Initial condit	ion	The manager under test is in the operating state.							
Test procedu	ure	The simulated agent sends a Confirmed variable event report:							
		a. ScanReportInfoVar. obs_scan_var:							
		☐ Count =2							
		☐ Length = 64472							
		ObservationScan ::= {							
		obj-handle: 1							
		attributes: AttributeList ::= {							
		AVA-Type ::= {							
		attribute-id: 61441							
		attribute-value: '00(64448 bytes) 00'0							
		}							
		}							
		}							
		ObservationScan ::= {							
		obj-handle: 1							
		attributes: AttributeList ::= {							
		AVA-Type ::= {							
		attribute-id: 2633 (MDC_ATTR_ENUM_OBS_VAL_SIMP_OID)							
		attribute-value: 1017 (MDC_HF_ACT_WALK)							
		}							
		}							
		}							
		Check the response of the manager under test.							
		The simulated agent sends a Confirmed fixed event report with one measurement.							
		4. Check the response of the manager under test.							

Notes		
	•	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Pass/Fail criteria	•	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".

A.8 Subgroup 2.3.7: Strength (ST)

TP ld		TP/PLT/MAN/CLASS/ST/BV-001				
TP label		Association procedure Manager ST				
Coverage	Spec	[ISO/IEEE 11073-10442]				
	Testable items	StrenAssocRes 1;M	StrenAssocRes 2;M	StrenAssocRes 3;M		
	licins	StrenAssocRes 4;M	StrenAssocRes 5;M	StrenAssocRes 6;M		
		StrenAssocRes 7;M	StrenAssocRes 8;M	StrenAssocRes 9;M		
		StrenAssocRes 10;M	StrenAssocRes 11;M			
Γest purpos	se	Check that:				
		In the DataProtoList struc id-20601 (i.e., data-proto-		dentifier shall be set to data-proto-		
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure and the version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000).				
		[AND]				
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager.				
		[AND]				
		The Manager shall support at least the MDER encoding rules.				
		[AND]				
		The version of the nomen	clature used shall be set to nom-	-version1		
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure which shall contain the field functional-units. It shall have all bits reset except for those relating to a Test Association.				
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure which shall contain the field system-type. It shall be set to sys-type-manager (i.e., system-type = 0x80000000).				
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure which contain the System-Id field. It shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier.				
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure which shall contain the following parameter values:The field dev-config-id shall be manager-configresponse (0).				
		[AND]				

	The data must into field shall be filled in with a Dhald association between the sand the		
	The data-proto-info field shall be filled in with a PhdAssociationInformation structure and the contain the field data-req-mode-capab. data-req-mode-capab Shall be 0.		
	[AND]		
	The data-proto-info field shall be filled in with a PhdAssociationInformation structure and shall contain the fields data-req-init-* count =0		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_022		
Other PICS			
Initial condition	The manager is in the unassociated state.		
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:		
	□ protocol-version = '100000000000000000000000000000000000		
	□ encoding-rules= '10000000000000'B		
	□ nomenclature-version = '100000000000000000000000000000000000		
	☐ functional-units = '00000000000000000000000000000000000		
	□ system-type = '000000001000000000000000000000000000		
	☐ dev-config-id = 16445		
	☐ data-rep-mode-capab =		
	data_req_mode_flags= '00000000000001'B		
	data_req_init_agent_count = 1		
	data_req_init_manager_count =0		
	□ option-list.length=0		
	2. The manager under test sends an association response. The fields of interest are:		
	a. APDU Type		
	☐ field-length = 2 bytes		
	☐ field-value = 0xE3 0x00 (AareApdu)		
	b. Result		
	☐ field- type = AssociateResult		
	☐ field-length = 2 bytes		
	☐ field-value = One of the following:		
	 If association is accepted, field-value=0x00 0x00. 		
	 If association is rejected-permanent, field-value=0x00 0x01. 		
	 If association is rejected-transient, field-value=0x00 0x02. 		
	 If association is accepted-unknown-config, field-value=0x00 0x03. 		
	 If association is rejected-no-common-protocol, field-value=0x00 0x04. 		
	 If association is rejected-no-common-parameter, field-value=0x00 0x05. 		
	 If association is rejected—unknown = 0x00 0x06. 		
	 If association is rejected-unauthorized, field-value=0x00 0x07. 		
	 If association is rejected—unsupported-assoc-version, field-value=0x00 0x08. 		
	c. selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))		
	d. data-proto-id		
	☐ field- type = DataProtoId		
	☐ field-length = 2 bytes		

	☐ field-value=0x50 0x79 (20601)
e.	protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
f.	encoding-rules
	☐ field-type = EncodingRules
	☐ field-length = 2 bytes (BITS-16)
	☐ field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
i.	system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
j.	system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field-value = (EUI-64 manufacturer and device)
k.	dev-config-id
	☐ field- type = ConfigId
	☐ field-length = 2 bytes
	☐ field-value = 0x00 0x00 (manager-config-response)
l.	data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	$\Box \text{field-value} = 0x00 \ 0x00$
	☐ manager response to data-req-mode-flags is always 0.
m.	data-req-init-agent-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 byte
	☐ field-value = 0x00
n.	data-req-init-manager-count (DataReqModeCapab)
	☐ field- type = INT-U8

	☐ field-length = = 1 byte	
	☐ field-value = 0x00	
Pass/Fail criteria	All checked values are as specified in the test procedure.	
Notes	Value for protocol-version has been modified according to [ISO/IEEE 11073-20601A].	

TP ld		TP/PLT/MAN/CLASS/ST/BV-002				
TP label		Maximum APDU size: Strength				
Coverage	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	CommonCharac 4;M				
Test purpos	e	Check that:				
		If a manager receives APDU the with an error (roer) code of prof	nat is larger than the manager's cool-violation.	receive buffer, it shall reply		
		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitiations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicability	1	C_MAN_OXP_000 AND C_MA	N_OXP_022			
Other PICS						
Initial condi	tion	The manager under test is in the operating state.				
Test proced	ure	The simulated agent sends a Confirmed variable event report:				
rest proceu	ui c	a. ScanReportInfoVar. obs	•	, or t.		
		☐ Count =2				
		☐ Length = 64472				
		ObservationScan ::= {				
		obj-handle: 1				
			ttributeList ::= {			
		AVA-Type ::	•			
			-id: 61441			
	attribute-value:					
		}				
		}				
		}				
		ObservationScan	::= {			
		obj-handle: 1				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
			-id: 2633 (MDC_ATTR_ENU	M OBS VAL SIMP OID)		
			-value: 284 (MDC_MUSC_H			
		}				

		}
	2.	Check the response of the manager under test.
	3.	The simulated agent sends a Confirmed fixed event report with one measurement.
	4.	Check the response of the manager under test.
Pass/Fail criteria	•	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".
	•	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes		

A.9 Subgroup 2.3.8: Activity hub (HUB)

TP ld		TP/PLT/MAN/CLASS/HUB/BV-003				
TP label		Association procedure manager HUB				
Coverage	Spec	[ISO/IEEE 11073-10471]				
	Testable	AssocResp1;M	AssocResp2;M	AssocResp3;M		
	items	AssocResp4;M	AssocResp5;M	AssocResp6;M		
		AssocResp7;M	AssocResp8;M	AssocResp9;M		
		AssocResp10;M	AssocResp11;M			
Test purpos	se	Check that:				
		In the DataProtoList str id-20601	ucture element, the data protoco	l identifier shall be set to data-proto-		
		[AND]				
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure				
		[AND]				
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)				
		[AND]				
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules				
		[AND]				
		The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)				
		[AND]				
		The field functional-units shall have all bits reset except for those relating to a Test Association.				
		[AND]				
		The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)				
		[AND]				
		The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier				
		[AND]				
		The field dev-config-id shall be manager-config-response (0)				
		[AND]				

	The field data-req-mode-capab shall be 0		
	[AND]		
	The fields data-req-init-*-count shall be 0		
Applicability	C_MAN_OXP_000 AND (C_MAN_OXP_021)		
Other PICS			
Initial condition	The manager is in the unassociated state.		
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:		
	□ protocol-version = '100000000000000000000000000000000000		
	□ encoding-rules= '100000000000000'B		
	□ nomenclature-version = '100000000000000000000000000000000000		
	☐ functional-units = '00000000000000000000000000000000000		
	□ system-type = '000000001000000000000000000000000000		
	dev-config-id = 16441		
	☐ data-rep-mode-capab =		
	data_req_mode_flags= '00000000000001'B		
	data_req_init_agent_count = 1		
	data_req_init_manager_count =0		
	□ option-list.length=0		
	2. The manager under test sends an association response. The fields of interest are:		
	a. APDU Type		
	☐ field-length = 2 bytes		
	☐ field-value = 0xE3 0x00 (AareApdu)		
	b. Result		
	☐ field- type = AssociateResult		
	☐ field-length = 2 bytes		
	☐ field-value = One of the following:		
	 If association is accepted, field-value=0x00 0x00. 		
	 If association is rejected-permanent, field-value=0x00 0x01. 		
	 If association is rejected-transient, field-value=0x00 0x02. 		
	 If association is accepted-unknown-config, field-value=0x00 0x03. 		
	 If association is rejected-no-common-protocol, field-value=0x00 0x04. 		
	 If association is rejected-no-common-parameter, field-value=0x00 0x05. 		
	 If association is rejected—unknown = 0x00 0x06. 		
	 If association is rejected-unauthorized, field-value=0x00 0x07. 		
	 If association is rejected—unsupported-assoc-version, field-value=0x00 0x08. 		
	 selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id)) 		
	d. data-proto-id		
	☐ field- type = DataProtoId		
	☐ field-length = 2 bytes		
	☐ field-value=0x50 0x79 (20601)		

e.	protocol-version
0.	☐ field- type = Protocol Version
	initial type = 1 lotteet version: in field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
f.	encoding-rules
	☐ field-type = EncodingRules
	☐ field-length = 2 bytes (BITS-16)
	field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
i.	system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
j.	system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field-value = (EUI-64 manufacturer and device)
k.	dev-config-id
	☐ field- type = ConfigId
	☐ field-length = 2 bytes
	☐ field-value = 0x00 0x00 (manager-config-response)
l.	data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	$\Box \text{field-value} = 0x00 \ 0x00$
	manager response to data-req-mode-flags is always 0.
m.	data-req-init-agent-count (DataReqModeCapab)
	ifield- type = INT-U8
	ifield-length = = 1 byte
	$\Box \text{field-value} = 0\text{x}00$
n.	data-req-init-manager-count (DataReqModeCapab)
	ifield-type = INT-U8
	☐ field-length = = 1 byte

	☐ field-value = 0x00
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	Value for protocol-version has been modified according to [ISO/IEEE 11073-20601A].

TP ld		TP/PLT/MAN/CLASS/HUB/BV-	004				
TP label		Maximum APDU size: Activity Hub					
	Smaa						
Coverage Spec		[ISO/IEEE 11073-20601A]					
	Testable items	CommonCharac 4;M					
Test purpos	se	Check that:					
		If a manager receives APDU the with an error (roer) code of prof	nat is larger than the manager's ocol-violation.	receive buffer, it shall reply			
		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitiations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.					
Applicability	y	C_MAN_OXP_000 AND C_MA	.N_OXP_021				
Other PICS							
Initial condi	tion	The manager under test is in the operating state.					
Test proced	lure	The simulated agent sends a Confirmed variable event report:					
		a. ScanReportInfoVar. obs	_scan_var:				
		☐ Count =2					
		☐ Length = 5080					
		ObservationScan ::= {					
		obj-handle: 1					
		attributes: AttributeList ::= {					
		AVA-Type ::= {					
		attribute-id: 61441					
		attribute-value:					
		}					
		ObservationScan ::= {					
		obj-handle: 1					
		attributes: AttributeList ::= {					
		AVA-Type ::= {					
	attribute-id: 2661 (MDC_ATTR_ENUM_OBS_VAL_SIMP_BIT_STR						
		attribute-value: 0x80 0x00 0x00 0x00					
		}					
		}					

		}
	2.	Check the response of the manager under test.
	3.	The simulated agent sends a Confirmed fixed event report with one measurement.
	4.	Check the response of the manager under test.
Pass/Fail criteria	•	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".
	•	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes		

A.10 Subgroup 2.3.9: Adherence monitor (AM)

TP Id		TP/PLT/MAN/CLASS/AM/BV-000						
TP label	TP label		Configuration Event Report. Adherence Monitor standard configuration 7200					
Coverage	Spec	[ISO	ISO/IEEE 11073-20601A]					
	Testable items	Cor	nfEver	ntRep 18;M				
Test purpose	•	Che	eck tha	at:				
		star	ndards	shall be able to acce	or more) of the ISO/IEEE 11073 pt all the standard device config able 23 under Gen-4.			
		to e	enter th		request the agent to send the s nd check attributes from the MDS agent.			
Applicability		C_I	MAN_	OXP_000 AND C_MA	N_OXP_016			
Other PICS								
Initial conditi	on	The simulated agent and the manager under test are in an unassociated state.						
Test procedu	re	The simulated agent sends an association request to the manager under test with dev- config-id set to 0x1c 0x20 (MedicalMonitor).						
		2. The manager under test responds with an association response, the field of interest is:						
			a. I	Result				
			I	☐ field- type = INT-U				
			I	☐ field-length =2 by				
		☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)						
		If the result of the association response was "accepted-unknown-config" 3. The simulated agent sends a configuration event report with config-report-id set to 0x1c						
			0x20		s a configuration event report wit	th config-report-id set to 0x1c		
		4. The manager under test must respond with:						
			a	APDU Type				
			I	☐ field-length =2 by	tes			
			I	☐ field-value =0xE7	0x00 (PrstAdpu)			
			b.	Invoke-id				
			I	☐ field- type = INT-l				
			I	☐ field-length =2 by	tes			

			field-value= it must be the same as the invoke-id of the simulated agent's message.
	C.	Obj	-Handle:
			field- type = HANDLE
			field-length =2 bytes
			field-value = $0x00 0x00$
	d.	Eve	ent-time:
			field- type = INT-U32
			field-length =4 bytes
			field-value: 0xXX 0xXX
	e.	Eve	ent-type:
			field-length = 2 bytes
			field-value= MDC_NOTI_CONFIG
	f.	The	following six bytes indicate:
			Event-replay-info.length (2 bytes)
			ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
			ConfigReportRsp.config-result: One of:
			accepted-config: 0x00 0x00
	Wait un	til the	e operating state is reached in both cases.
	5. The	e sim	ulated agent sends a fixed event report with one measurement.
Pass/Fail criteria	• The	e mai	nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
	The measurement is correctly presented.		
Notes	The ma	nage	r can request Get MDS while they are in the associated state.

TP ld		TP/PLT/MAN/CLASS/AM/BV-001					
TP label		Configuration Event Report. Adherence Monitor standard configuration 7201					
Coverage	Spec	[ISO/IEEE 11073-20601A]	ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M					
Test purpos	е	Check that:					
		A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.					
		Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.					
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016					
Other PICS							
Initial condi	tion	The simulated agent and the ma	anager under test are in an una	ssociated state.			

Test procedure	1.		e simulated agent test sends an association request to the manager under test with y-config-id set to 0x1c 0x21 (MedicalMonitor).
	2.	The	e manager under test responds with an association response, the field of interest is:
		a.	Result
			☐ field- type = INT-U16
			☐ field-length =2 bytes
			☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)
	If th	ne re	sult of the association response was "accepted-unknown-config"
	3.	The 0x2	e simulated agent sends a configuration event report with config-report-id set to 0x1c
	4.	The	e manager under test must respond with:
		a.	APDU Type
			☐ field-length =2 bytes
			☐ field-value =0xE7 0x00 (PrstAdpu)
		b.	Invoke-id
			☐ field- type = INT-U16
			☐ field-length =2 bytes
			☐ field-value= it must be the same as the invoke-id of the simulated agent's message.
		c.	Obj-Handle:
			☐ field- type = HANDLE
			☐ field-length =2 bytes
			$\Box \text{field-value} = 0x00 \ 0x00$
		d.	Event-time:
			☐ field- type = INT-U32
			☐ field-length =4 bytes
			☐ field-value: 0xXX 0xXX
		e.	Event-type:
			☐ field-length = 2 bytes
			☐ field-value= MDC_NOTI_CONFIG
		f.	The following six bytes indicate:
			☐ Event-replay-info.length (2 bytes)
			☐ ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
			☐ ConfigReportRsp.config-result: One of:
			 accepted-config: 0x00 0x00
	Wa	it un	til the operating state is reached in both cases.
	5.	The	e simulated agent sends a fixed event report with one measurement.
Pass/Fail criteria	•		e manager under test must respond either to the association request with an cepted" message or to the Configuration Event Report with an "accepted-config".
	•		e measurement is correctly presented.
Notes	Ψ.		
Notes	The	e ma	nager can request Get MDS while they are in the associated state.

TP ld	TP ld		TP/PLT/MAN/CLASS/AM/BV-002					
TP label		Configuration Event Report. Adherence Monitor standard configuration 7202						
Coverage	Spec	[IS	O/IE	EE 11073-20601A]				
	Testable items	Co	nfEv	entRep 18;M				
Test purpose	е	Ch	eck t	hat:				
		A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.						
		to e	enter	ively, the manager may request the agent to send the standard configuration in order the configuring state and check attributes from the MDS object prior to final ince (or rejection) of the agent.				
Applicability		C_	MAN	_OXP_000 AND C_MAN_OXP_016				
Other PICS								
Initial condit	ion	The	e sim	nulated agent and the manager under test are in an unassociated state.				
Test procedu	ure	1.		e simulated agent sends an association request to the manager under test with dev- ofig-id set to 0x1c 0x22 (MedicalMonitor).				
		2.	The	e manager under test responds with an association response, the field of interest is:				
			a.	Result				
				ield- type = INT-U16				
				in field-length =2 bytes				
		16.41		ifield-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)				
			If the result of the association response was "accepted-unknown-config"					
		3.	0x2	e simulated agent sends a configuration event report with config-report-id set to 0x1c 22.				
		4.	The	e manager under test must respond with:				
			a.	APDU Type				
				☐ field-length =2 bytes				
				☐ field-value =0xE7 0x00 (PrstAdpu)				
			b.	Invoke-id				
				☐ field- type = INT-U16				
				☐ field-length =2 bytes				
				field-value= it must be the same as the invoke-id of the simulated agent's message.				
			C.	Obj-Handle:				
				☐ field- type = HANDLE				
				☐ field-length =2 bytes				
				☐ field-value = 0x00 0x00				
			d.	Event-time:				
				☐ field- type = INT-U32				
				☐ field-length =4 bytes				
				☐ field-value: 0xXX 0xXX				
			e.	Event-type:				
				☐ field-length = 2 bytes				

	☐ field-value= MDC_NOTI_CONFIG			
	f. The following six bytes indicate:			
	☐ Event-replay-info.length (2 bytes)			
	 ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message 			
	☐ ConfigReportRsp.config-result: One of:			
	accepted-config: 0x00 0x00			
	Wait until the operating state is reached in both cases.			
	5. The simulated agent sends a fixed event report with one measurement.			
Pass/Fail criteria	 The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config". The measurement is correctly presented. 			
Notes	The manager can request Get MDS while they are in the associated state.			

TP ld		TP/PLT/MAN/CLASS/AM/BV-003						
TP label		Configuration Event Report. Adherence Monitor standard configuration 7203						
Coverage	Spec	[IS	[ISO/IEEE 11073-20601A]					
	Testable items	Co	ConfEventRep 18;M					
Test purpos	e	Ch	eck that:					
		sta	ndards shall be able t	o acce	or more) of the ISO/IEE opt all the standard dev able 23 under Gen-4.	EE 11073 ice config	-104zz device specialization gurations specified for the	
		to e	Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.					
Applicability	/	C_	MAN_OXP_000 AND	C_MA	N_OXP_016			
Other PICS								
Initial condi	tion	The simulated agent and the manager under test are in an unassociated state.						
Test proced	ure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x1c 0x23 (MedicalMonitor).						
		2. The manager under test responds with an association response, the field of interest is:						
			a. Result					
			field- type :	= INT-I	J16			
			field-length	=2 by	tes			
			☐ field-value	= 0x00	0x00 (accepted) or 0x	00 0x03	(accepted-unknown-config)	
		If the result of the association response was "accepted-unknown-config"						
		3. The simulated agent sends a configuration event report with config-report-id set to 0x1c 0x23.						
		4.	The manager under	test m	ust respond with:			
			a. APDU Type					
			field-length	=2 by	tes			
			☐ field-value	=0xE7	0x00 (PrstAdpu)			

	b.	Invoke-id		
		☐ field- type = INT-U16		
		☐ field-length =2 bytes		
		field-value= it must be the same as the invoke-id of the simulated agent's message.		
	C.	Obj-Handle:		
		☐ field- type = HANDLE		
		☐ field-length =2 bytes		
		☐ field-value = 0x00 0x00		
	d.	Event-time:		
		☐ field- type = INT-U32		
		☐ field-length =4 bytes		
		☐ field-value: 0xXX 0xXX		
	e.	Event-type:		
		☐ field-length = 2 bytes		
		☐ field-value= MDC_NOTI_CONFIG		
	f.	The following six bytes indicate:		
		☐ Event-replay-info.length (2 bytes)		
		☐ ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message		
		☐ ConfigReportRsp.config-result: One of:		
		accepted-config: 0x00 0x00		
	Wait un	til the operating state is reached in both cases.		
	5. The	e simulated agent sends a fixed event report with one measurement.		
Pass/Fail criteria		ne manager under test must respond either to the association request with an ccepted" message or to the Configuration Event Report with an "accepted-config".		
	• The	e measurement is correctly presented.		
Notes	The ma	nager can request Get MDS while they are in the associated state.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-004					
TP label		Maximum APDU size: Adherence Monitor	Maximum APDU size: Adherence Monitor				
Coverage	Spec	[ISO/IEEE 11073-20601A]					
	Testable items	CommonCharac 4;M					
Test purpose		Check that: If a manager receives an APDU that is larger than the manager's receive b with an error (roer) code of protocol-violation. The manager's receive buffer shall be at least as large as the largest buffer specializations the manager supports. The buffer size limitations in this bul apply to all APDUs regardless of whether a standard or extended configuration.	specified in the let and the next on				
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016					
Other PICS							

Initial condition	The manager under test is in the operating state.
Test procedure	The simulated agent sends a Confirmed variable event report:
	a. ScanReportInfoVar. obs_scan_var:
	☐ Count =2
	☐ Length = 984
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 61441
	attribute-value: '00(960 bytes) 00'0
	}
	}
	}
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)
	attribute-value: 3
	}
	}
	}
	Check the response of the manager under test.
	3. The simulated agent sends a Confirmed fixed event report with one measurement.
	4. Check the response of the manager under test.
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report"
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes	

TP ld		TP/PLT/MAN/CLASS/AM/BV-005				
TP label		Attribute-Value-Map. Order change. (0x1c20)				
Coverage Spec		[ISO/IEEE 11073-10472]				
Testable items		FixedDosage12; M				
Test purpos	se	Check that:				
		For [Standard-Configuration, Fixed Dosage Medication Object] the [Attribute-Value-Map] attribute shall be present and with value MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC				
Applicability		C_MAN_OXP_000 AND C_MA	.N_OXP_016			

Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).
Test procedure	The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC.
	2. The simulated agent waits until it receives a confirmation.
	3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Fixed Dosage Medication Object) to reverse the values to:, MDC_ATTR_NU_VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_ABS.
	4. The simulated agent waits until it receives a confirmation.
	Send a confirmed fixed format event report with the measurement followed by the date (absolute-time-stamp).
	6. The simulated agent waits until it receives a confirmation.
	7. The simulated agent sends an association release request (normal).
	8. The simulated agent waits until there is an association release response.
	9. The simulated agent sends an association request using the same standard configuration that was used previously.
	 If the manager under test responds with association request response with "accepted- unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC). The observation should be a reasonable Fixed Dosage Medication observation.
	12. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP Id		TP/PLT/MAN/CLASS/AM/BV-006		
TP label		Attribute-Value-Map. Order change. (0x1c23)		
Coverage	Spec [ISO/IEEE 11073-10472]			
	Testable items	VarDosage12; M	UserFeedback12; M	StatReporter12; M

Test purpose	Check that:
	For [Standard-Configuration, Variable Dosage Medication Object] the [Attribute-Value-Map] attribute shall be present
	The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_TIME_STAMP_ABS MDC_ATTR_NU_VAL_OBS_SIMP
	[AND]
	For [Standard-Configuration, User Feedback Object] the [Attribute-Value-Map] attribute shall be present
	The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_TIME_STAMP_ABS MDC_ATTR_NU_CMPD_VAL_OBS_BASIC
	[AND]
	For [Standard-Configuration, Status Reporter Object] the [Attribute-Value-Map] attribute shall be present
	The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_TIME_STAMP_ABS MDC_ATTR_ENUM_OBS_VAL_BASIC_BIT_STR
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_016
Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).
Test procedure	The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of:
	 MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_VAL_OBS_BASIC for Variable Dosage Medication Object
	 MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_CMPD_VAL_OBS_BASIC for User Feedback Object
	 MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_ENUM_OBS_VAL_BASIC_BIT_STR for Status Reporter Object
	2. The simulated agent waits until it receives a confirmation.
	3. The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 2 (Variable Dosage Medication Object), of handle 4 (User Feedback objec) and of handle 3 (Status Reporter Object) to reverse the values to:
	 MDC_ATTR_NU_VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_ABS for Variable Dosage Medication Object
	MDC_ATTR_NU_CMPD_VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_ABS for User Feedback Object
	 MDC_ATTR_ENUM_OBS_VAL_BASIC_BIT_STR then MDC_ATTR_TIME_STAMP_ABS for Status Reporter Object
	4. The simulated agent waits until it receives a confirmation.
	Send a confirmed fixed format event report with the date (absolute-time-stamp) by a measurement data for every object.
	6. The simulated agent waits until it receives a confirmation.
	7. The simulated agent sends an association release request (normal).
	8. The simulated agent waits until there is an association release response.
	The simulated agent sends an association request using the same standard configuration that was used previously.
	 If the manager under test responds with association request response with "accepted- unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.

	The simulated agent waits until there is a confirmation to the sentimental and a sen
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (Observed value defined for every object, then MDC_ATTR_TIME_STAMP_ABS). The observations should be reasonable Variable Dosage Medication, User Feedback and Status Reporter values.
	12. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	 In steps 2, 6 and 12 verify that the manager under test uses ml as the unit code for Variable Dosage Medication report (or reports the proper value after conversion to another unit code).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP ld		TP/PLT/MAN/CLASS/AM/BV-007		
TP label		Metric-id-list. Standard configuration		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	UserFeedback9; M		
Test purpose	9	Check that:		
		For [Standard-Configuration, User Feedbackl Object]. Metric-Id List attribute shall be present and with value {MDC_AI_MED_UF_LOCATION, MDC_AI_MED_UF_RESPONSE}		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).		
Test procedure		The simulated agent sends a confirmed variable event report for handle 4 (user feedback) containing an observation with the compound field values (SFLOAT) set to (1, 0), for handle 2 containing an observation (FLOAT) of 3 and for handle 3 containing an observation (Enum-Observed-Value-Basic-Bit-Str) with bit 0 set to 1 (A medication dosage was not dispensed within the regimen allowed timing).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		Verify that the manager under test is able to accept the data and applies the data properly as User Feedback: location = 1, response = 0, Variable Dosage Medication= 3 and Status Reporter informing that medication dosage was not dispensed within the regimen allowed timing (bit 0 set to 1).		
Notes				

TP Id		TP/PLT/MAN/CLASS/AM/BV-008		
TP label		Metric-id-list. Id order change – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	UserFeedback9; M		
Test purpose)	Check that:		
		For [Standard-Configuration, User Feedbackl Object]. Metric-Id List attribute shall be present and with value {MDC_AI_MED_UF_LOCATION, MDC_AI_MED_UF_RESPONSE}		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).		
Test procedure		The simulated agent sends a confirmed variable event report for handle 4 (user feedback) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_AI_MED_UF_RESPONSE, then MDC_AI_MED_UF_LOCATION).		
		2. The simulated agent sends a confirmed fixed event report for handle 4 containing a time-stamp and an observation with the compound field values (SFLOAT) set to (2, 3), for handle 2 containing a time-stamp and observation for Variable Dosage Medication of 3ml and for handle 3 containing a time-stamp and observation for Status reporter (Bit 0 set to 1).		
		3. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		Verify that the manager under test is able to accept the data and time stamp and applies the data (for compound value) properly as Location = 3, Response = 2.		
Notes				

TP ld		TP/PLT/MAN/CLASS/AM/BV-009		
TP label		Metric-id-list. Id order change – variable format		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	UserFeedback9; M		
Test purpose		Check that: For [Standard-Configuration, User Feedbackl Object]. Metric-Id List attribute shall be present and with value {MDC_AI_MED_UF_LOCATION, MDC_AI_MED_UF_RESPONSE}		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).		
Test procedure		The simulated agent sends a confirmed variable event report for handle 4 (user feedback) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_AI_MED_UF_RESPONSE, then MDC_AI_MED_UF_LOCATION). In a second observation scan, for handle 4 set the compound field values (SFLOAT) to (4, 5) along with a known time stamp.		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		

Pass/Fail criteria	 Verify that the manager under test is able to accept the data and time stamp and applies the data properly as Location = 5, Response = 4.
Notes	

TP ld		TP/PLT/MAN/CLASS/AM/BV-010		
TP label		Metric-id-list. Reduced ids – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	UserFeedback9; M		
Test purpose	е	Check that:		
		For [Standard-Configuration, User Feedbackl Object]. Metric-Id List attribute shall be present and with value {MDC_AI_MED_UF_LOCATION, MDC_AI_MED_UF_RESPONSE}		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).		
Test procedure		The simulated agent sends a confirmed variable event report for handle 4 (user feedback) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_AI_MED_UF_LOCATION) and MDC_ATTR_ATTRIBUTE_VAL_MAP to { MDC_ATTR_TIME_STAMP_ABS, 8, MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, 6}.		
		2. The simulated agent sends a confirmed fixed event report for handle 4 containing an observation with the compound field values (SFLOAT) set to (5) along with a known time stamp.		
		3. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		Verify that the manager under test is able to accept the data and time stamp and applies the data properly location=5.		
Notes				

TP ld		TP/PLT/MAN/CLASS/AM/BV-011
TP label		Metric-id-list. Reduced ids – variable format
Coverage	Spec	[ISO/IEEE 11073-10472]
	Testable items	UserFeedback9; M
Test purpos	se	Check that:
		For [Standard-Configuration, User Feedbackl Object]. Metric-Id List attribute shall be present and with value {MDC_AI_MED_UF_LOCATION, MDC_AI_MED_UF_RESPONSE}.
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016
Other PICS		
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).

Test procedure	1.	The simulated agent sends a confirmed variable event report for handle 4 (user feedback) setting MDC_ATTR_ID_PHYSIO_LIST to (MDC_AI_MED_UF_LOCATION).
	2.	The simulated agent waits until it receives a confirmation from the manager under test.
	3.	The simulated agent sends a confirmed variable event report for handle 4 containing an observation with the compound field values (SFLOAT) set to (3.0) along with a known time stamp.
	4.	The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	•	Verify that the manager under test is able to accept the data and time stamp and applies the data properly as location = 3.0.
Notes		

TP ld		TP/PLT/MAN/CLASS/AM/BV-012		
TP label		Special values. Not a number – fixed format (0x1c20)		
Coverage	Spec [ISO/IEEE 11073-10472]			
	Testable items	FixedDosage12; M		
Test purpose	•	Check that:		
		Manager receives a NaN value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Fixed Dosage Medication Object) containing an observation with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 		
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).		
Notes		This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/AM/BV-013
TP label		Special values. Not a number – variable format(0x1c20)
Coverage Spec		[ISO/IEEE 11073-10472]
	Testable items	FixedDosage22; C
Test purpose		Check that: Manager receives a NaN value (variable format event report) but it does not use this value.
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016
Other PICS		

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Fixed Dosage Medication Object) containing an observation with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 		
Notes	This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-014		
TP label		Special values. Not at this resolution – fixed format(0x1c20)		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage12; M		
Test purpose	9	Check that: Manager receives NRes value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condit	Initial condition The simulated agent and the manager under test are in the operating state using the configuration (0x1c20).			
Test procedu	 Test procedure The simulated agent sends a confirmed fixed event report for handle 1 (Fixed Dos Medication) containing an observation with the value for NRes ([exponent 0, man (2**11) = 0x0800]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under the confirmation from the confirmation f			
as if they were an ac		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes		This test case has been considered as an implicit test case.		

TP Id TP/PLT/MAN/CLASS/AM/BV-015		TP/PLT/MAN/CLASS/AM/BV-015		
TP label Special values. Not at this resolution – variable format (0x1c20)		Special values. Not at this resolution – variable format (0x1c20)		
Coverage Spec		[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage22; C		
Test purpose		Check that: Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability C_MAN_OXP_000 AND C_MAN_OXP_016		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS	ther PICS			

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Fixed Dosag Medication) containing an observation with the value for NRes ([exponent 0, mantissa - (2**11) = 0x0800]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes	This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-016		
TP label		Special values. Positive infinity – fixed format (0x1c20)		
Coverage Spec		[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage12; M		
Test purpos	е	Check that:		
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-017			
TP label		Special values. Positive infinity – variable format(0x1c20)			
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	FixedDosage22; C			
Test purpose		Check that: Manager receives a + INFINITY value (variable format event report) but it does not use this value.			
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_016			

Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Fixed Dosage Medication) containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the value as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 	
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/AM/BV-018		
TP label		Special values. Negative infinity – fixed format (0x1c20)		
Coverage Spec [ISO/IEEE 11073-10472]		[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage12; M		
Test purpose	е	Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condit	Initial condition The simulated agent and the manager under test are in the operating state using the configuration (0x1c20).			
Medication) containing an observation with the value for negative infinity ($-INF$ [exponent 0, mantissa $-(2^{**}11 - 2) = 0x0802$]) and a time stamp.		Medication) containing an observation with the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp.		
as if they were an actual measurement (e.g. if there		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-019		
TP label Special values. Negative infinity – variable format (0x1c20)		Special values. Negative infinity – variable format (0x1c20)		
Coverage Spec [ISO/IEEE 11073-10472]		[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage22; C		
Test purpose		Check that: Manager receives a - INFINITY value (variable format event report) but it does not use this value.		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_016		

Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standar configuration.	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Fixed Dosage Medication) containing an observation with the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/AM/BV-020		
TP label		Special values. Reserved – fixed format (0x1c20)		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage12; M		
Test purpose)	Check that:		
		Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS				
Initial condition The simulated agent and the manager under test are in the operating state configuration (0x1c20).		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure		The simulated agent sends a confirmed fixed event report for handle 1 (Fixed Dosage Medication) containing an observation with the value that is reserved (Reserved for future use, [exponent 0, mantissa –(2**11–1) = 0x0801]) and a time stamp.		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.		

TP Id TP/PLT/MAN/CLASS/AM/BV-021				
TP label		Special values. Reserved – variable format (0x1c20)		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	FixedDosage22; C		
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does		
		not use this value.	·	•

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20).		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 1 (Fixed Dosage Medication) containing an observation with the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11–1) = 0x0801]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes	This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/AM/BV-022			
TP label		Special values. Not a number – fixed format (0x1c23)			
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage12; M	UserFeedback12; M		
Test purpose	Э	Check that: Manager receives a Na	aN value (fixed format event report) but it	t does not use this value.	
Applicability		C_MAN_OXP_000 AN	D C_MAN_OXP_016		
Other PICS					
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).			
 Test procedure The simulated agent sends a confirmed fixed event report for handle 2 (Variable Medication) and handle 4 (User Feedback) containing an observation value servalue for NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF] for Variable Medication, and [exponent 0, mantissa +(2**11 -1) = 0x07FF] for User Feedback The simulated agent waits until it receives a confirmation from the manager under the confirmation from the conf		observation value set to the FFFFF] for Variable Dosage FF] for User Feedback).			
• Verify that the manager under test is able to acce as if they were an actual measurement (e.g. if the is displayed in some form that indicates it is not a the display area).		actual measurement (e.g. if there is a Ul	, verify that the measurement		
Notes	Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/AM/BV-023		
TP label		Special values. Not a number – variable format (0x1c23)		
Coverage	Spec	[ISO/IEEE 11073-10472]		
	Testable items	VarDosage20; C	UserFeedback23; C	

Test purpose	Check that:		
	Manager receives a NaN value (variable format event report) but it does not use this value.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_016		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 2 (Variable Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF] for Variable Dosage Medication and [exponent 0, mantissa +(2**11 -1) = 0x07FF] for User Feedback). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).		
Notes	This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/AM/BV-024			
TP label		Special values. Not at this resolution – fixed format (0x1c23)			
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage12; M	UserFeedback12; M		
Test purpose	е	Check that:			
		Manager receives NRes value (fixed format event report) but it does not use this value.			
Applicability	,	C_MAN_OXP_000 AND	C_MAN_OXP_016		
Other PICS					
Initial condition The simulated agent and the manager under test are in the operating state using configuration (0x1c23).		erating state using the standard			
Test procedure 1. The simulated agent sends a confirmed fixed eve Medication) and handle 4 (User Feedback) contain value for NRes ([exponent 0, mantissa +(2**23) = Medication and [exponent 0, mantissa -(2**11) =		ndle 4 (User Feedback) containing an opponent 0, mantissa +(2**23) = 0x00800 ponent 0, mantissa -(2**11) = 0x0800]	observation value set to the 2000] for Variable Dosage for User Feedback).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
• Verify that the manager under test is able to accept the data, but does as if they were an actual measurement (e.g. if there is a UI, verify that is displayed in some form that indicates it is not a measurement).		I, verify that the measurement			
Notes	Notes This test case has been considered as an implicit test case.				

TP ld	TP/PLT/MAN/CLASS/AM/BV-025	
TP label	Special values. Not at this resolution – variable format (0x1c23)	

Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage20; C		UserFeedback23; C	
Test purpose Check that: Manager receives NRes value (variable format event report) but it does not use this		it it does not use this value.			
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_016			
Other PICS					
Initial condi	nitial condition The simulated agent and the manager under test are in the operating state using the state configuration (0x1c23).			erating state using the standard	
 Test procedure The simulated agent sends a confirmed variable event report for handle 2 (Note to the value for NRes ([exponent 0, mantissa +(2**23) = 0x00800000] for Variable Dosage Medication and [exponent 0, mantissa -(2**11) = 0x0800] for User Figure 2. The simulated agent waits until it receives a confirmation from the manager 		ning an observation value set (00800000] for Variable (0x0800] for User Feedback).			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case has been considered as an implicit test case.					

TP ld		TP/PLT/MAN/CLASS/AM/BV-026			
TP label		Special values. Positive infinity – fixed format (0x1c23)			
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage12; M UserFeedback12; M			
Test purpose	e	Check that:			
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.			
Applicability	,	C_MAN_OXP_000 AND C_M	IAN_OXP_016		
Other PICS					
		The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).			
Test procedure		1. The simulated agent sends a confirmed fixed event report for handle 2 (Variable Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 – 2) = 0x007FFFE] for Variable Dosage Medication and [exponent 0, mantissa +(2**11 –2) = 0x07FE] for User Feedback).			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case has been considered as an implicit test case.					

TP Id		TP/PLT/MAN/CLASS/AM/BV-027			
TP label Specia		Special values. Positive infinity	Special values. Positive infinity – variable format (0x1c23)		
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage20; C UserFeedback23; C			
Test purpose)	Check that:			
		Manager receives a + INFINITY value.	Y value (variable format event re	port) but it does not use this	
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_016		
Other PICS					
Initial condition The simulated agent and the manager under test are in the operating state using t configuration (0x1c23).		erating state using the standard			
Dosage Medication) to the value for posit 0x007FFFFE] for Va		Dosage Medication) and h to the value for positive inf	s a confirmed variable event rep andle 4 (User Feedback) contain inity (+INFINITY, [exponent 0, m Dosage Medication and [exponent).	ning an observation value set nantissa +(2**23 - 2) =	
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria •		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes	Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/AM/BV-028			
TP label		Special values. Negative infinity – fixed format (0x1c23)			
Coverage	Spec	[ISO/IEEE 11073-10472]			
	Testable items	VarDosage12; M UserFeedback12; M			
Test purpos	Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use		nt report) but it does not use this value.		
Applicabilit	у	C_MAN_OXP_000 AND	C_MAN_OXP_016		
Other PICS	Other PICS				
Initial condition The simulated agent and the manager under test are in the operating state u configuration (0x1c23).		the operating state using the standard			
Test procedure		1. The simulated agent sends a confirmed fixed event report for handle 2 (Variable Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 – 2) = 0x00800002] for Variable Dosage Medication and [exponent 0, mantissa –(2**11 -2) = 0x0802] for User Feedback).			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/AM/BV-029					
TP label		Special values. Negative infinity – variable format (0x1c23)					
Coverage	Spec	[ISO/IEEE 11073-104	172]				
	Testable items	VarDosage20; C	UserFeedback23; C				
Test purpos	ie	Check that:					
		Manager receives a - value.	INFINITY value (variable format event rep	port) but it does not use this			
Applicability	y	C_MAN_OXP_000 AI	ND C_MAN_OXP_016				
Other PICS							
Initial condition The simulated agent and the manager under test are in the operating state us configuration (0x1c23).				erating state using the standard			
Test proced	ure	Dosage Medication to the value for no	gent sends a confirmed variable event reprion) and handle 4 (User Feedback) contain egative infinity (–INFINITY, [exponent 0, no Variable Dosage Medication and [expone Feedback).	ning an observation value set mantissa –(2**23 – 2) =			
		2. The simulated agent waits until it receives a confirmation from the manager under test.					
Pass/Fail cr	iteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 					
Notes		This test case has be	en considered as an implicit test case.				

TP Id	TP/PLT/MAN/CLASS/AM/BV-030						
TP label		Special values. Reserved – fixed format (0x1c23)					
Coverage	Spec	[ISO/IEEE 11073-10472	2]				
	Testable items	VarDosage12; M	UserFeedback12; M				
Test purpos	е	Check that:					
		Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.					
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_016					
Other PICS							
Initial condition		The simulated agent an configuration (0x1c23).	d the manager under test are in the o	perating state using the standard			

Test procedure	 The simulated agent sends a confirmed fixed event report for handle 2 (Variable Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23 – 1) = 0x00800001] for Variable Dosage Medication and [exponent 0, mantissa –(2**11 –1) = 0x0801] for User Feedback).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/AM/BV-031					
TP label		Special values. Reserved – variable format (0x1c23)					
Coverage	Spec	[ISO/IEEE 11073-10472]					
	Testable items	VarDosage20; C	UserFeedback23; C				
Test purpose Check that: Manager receives a Reserved for future use value (variable format ev not use this value.				e format event report) but it does			
Applicability		C_MAN_OXP_000 AN	D C_MAN_OXP_016				
Other PICS							
Initial conditi	ion	The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23).					
Test procedu	ıre	 The simulated agent sends a confirmed variable event report for handle 2 (Variable Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23 – 1) = 0x00800001] for Variable Dosage Medication and [exponent 0, mantissa –(2**11 –1) = 0x0801] for User Feedback). 					
Pass/Fail crit	teria	 The simulated agent waits until it receives a confirmation from the manager under test. Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 					
Notes		This test case has been	n considered as an implicit test case) .			

TP ld	TP/PLT/MAN/CLASS/AM/BV-032
TP label	Association procedure Manager AM

Coverage	Spec	[ISO/IEEE 11073-10472]	-	-					
	Testable items	MM_AssocReq9; M	MM_AssocResp1; M	MM_AssocResp2; M					
	items	MM_AssocResp3; M	MM_AssocResp4; M	MM_AssocResp5; M					
		MM_AssocResp6; M	MM_AssocResp7; M	MM_AssocResp8; M					
		MM_AssocResp9; M	MM_AssocResp10; M	MM_AssocResp11; M					
		MM_AssocResp12; M							
Test purpose	:	Check that:							
		In the association response message sent by the Manager:							
		The result field shall be set to a P11073-20601.	an appropriate response from the	nose defined in ISO/IEEE					
		[AND]							
		In the DataProtoList structure eid-20601	element, the data protocol ident	ifier shall be set to data-proto-					
		[AND]							
		The data-proto-info field shall b	e filled in with a PhdAssociatio	nInformation structure					
		[AND]							
		The version of the data exchan version = 0x80000000)	ge protocol shall be set to prot	ocol-version1 (i.e., protocol-					
		[AND]							
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules							
		[AND]							
		The version of the nomenclature version = 0x80000000)	re used shall be set to nom-ver	sion1 (i.e., nomenclature-					
		[AND]							
		The field functional-units shall I Association.	nave all bits reset except for the	ose relating to a Test					
		[AND]							
		The field system-type shall be	set to sys-type-manager (i.e., s	ystem-type = 0x80000000)					
		[AND]							
		The System-Id field shall conta a valid EUI-64 type identifier	in the unique system id of the I	Manager device, which shall be					
		[AND]							
		The field dev-config-id shall be	manager-config-response (0)						
		[AND]							
		The field data-req-mode-capab	shall be 0						
		[AND]	shall be 0						
Applicability		The fields data-req-init-*-count C_MAN_OXP_000 AND C_MA							
		0_1VII 114_0/11 _000 A14D 0_1VIA	O/\(\)						
Other PICS									
Initial conditi	on	The manager is in the unassoc	iated state.						

Test procedure	1.	The		nulated agent sends an association request to the manager under test, with the
				protocol-version = '100000000000000000000000000000000000
				encoding-rules= '10000000000000'B
				nomenclature-version = '100000000000000000000000000000000000
				functional-units = '00000000000000000000000000000000000
				system-type = '000000010000000000000000000000000000
				dev-config-id = 16481
				data-rep-mode-capab =
				data_req_mode_flags= '00000000000001'B
				data_req_init_agent_count = 1
				data_req_init_manager_count =0
				option-list.length=0
	2.	The	e ma	nager under test sends an association response. The fields of interest are:
		a.	ΑP	DU Type
				field-length = 2 bytes
				field-value = 0xE3 0x00 (AareApdu)
		b.	Re	sult
				field- type = AssociateResult
				field-length = 2 bytes
				field-value = One of the following:
				If association is accepted, field-value=0x00 0x00.
				■ If association is rejected-permanent, field-value=0x00 0x01.
				■ If association is rejected-transient, field-value=0x00 0x02.
				If association is accepted-unknown-config, field-value=0x00 0x03.
				■ If association is rejected-no-common-protocol, field-value=0x00 0x04.
				■ If association is rejected-no-common-parameter, field-value=0x00 0x05.
				■ If association is rejected—unknown = 0x00 0x06.
				If association is rejected-unauthorized, field-value=0x00 0x07.
				 If association is rejected—unsupported-assoc-version, field-value=0x00 0x08.
		C.		ected-data-proto (DataProto: sequence of data-proto-id (DataProtoId) and data- to-info(defined by data-proto-id))
		d.	dat	a-proto-id
				field- type = DataProtoId
				field-length = 2 bytes
				field-value=0x50 0x79 (20601)
		e.	pro	tocol-version
				field- type = Protocol Version
				field-length = 4 bytes (BITS-32)
				field-value=0x80 0x00 0x00 0x00
		f.	end	coding-rules
				field-type = EncodingRules
				field-length = 2 bytes (BITS-16)
				field-value= depends on the encoding rules supported/selected, but only one

	can be supported at a time
	g. nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
	h. functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	■ Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
	i. system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j. system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field-value = (EUI-64 manufacturer and device)
	k. dev-config-id
	☐ field- type = ConfigId
	☐ field-length = 2 bytes
	☐ field-value = 0x00 0x00 (manager-config-response)
	data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	☐ field-value = 0x00 0x00
	manager response to data-req-mode-flags is always 0.
	m. data-req-init-agent-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 byte
	☐ field-value = 0x00
	n. data-req-init-manager-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 byte
	☐ field-value = 0x00
Pass/Fail criteria	All checked values are as specified in the test procedure
r ass/raii cilleila	All checked values are as specified in the test procedure.
Notes	Value for protocol-version has been modified according to [ISO/IEEE 11073-20601A].
	data-req-init-agent-count verification has been updated according to IEEE PHD errata. See http://continua.plugfests.com/show_bug.cgi?id=786 for further details.
	nttp://continua.pluglesis.com/snow_pug.cgi/iu=/oo_ioi further uetalis.

A.11 Subgroup 2.3.11: Peak flow (PF)

TP ld		TP/PLT/MAN/CLASS/PF/BV-000						
TP label		Configuration Event Report. Peak Flow standard configuration 2100						
Coverage	Spec	[IS	[ISO/IEEE 11073-20601A]					
	Testable items	Co	ConfEventRep 18;M					
Test purpose		A N sta pro Alto	Check that: A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4. Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.					
Applicability	,	C_	MAN	_OXI	P_000 AND C_MAN_OXP_018			
Other PICS								
Initial condit	lian.	The	o oim	ulata	and agent and the manager under test are in an uncessisted state			
		1116	e siii	iuiaie	ed agent and the manager under test are in an unassociated state.			
Test proced	ure	1.			rulated agent test sends an association request to the manager under test with fig-id set to 0x08 0x34 (Peak Flow)			
		2.			nager under test responds with an association response, the field of interest is:			
			a.	Res	sult			
					field- type = INT-U16			
					field-length =2 bytes			
					field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)			
		If th	he re	sult o	of the association response was "accepted-unknown-config"			
		3.	3. The simulated agent sends a configuration event report with config-report-id set to 0x08 0x34.					
		4.	The	e mar	nager under test must respond with:			
			a.	APE	DU Type			
					field-length =2 bytes			
					field-value =0xE7 0x00 (PrstAdpu)			
			b.	Invo	oke-id			
					field- type = INT-U16			
					field-length =2 bytes			
					field-value = it must be the same as the invoke-id of the simulated agent's message.			
			c.	Obj-	j-Handle:			
					field- type = HANDLE			
					field-length =2 bytes			
					field-value = 0x00 0x00			
			d.	Eve	ent-time:			
					field- type = INT-U32			
					field-length =4 bytes			
					field-value: 0xXX 0xXX			

		-
	e.	Event-type:
		☐ field-length = 2 bytes
		☐ field-value = MDC_NOTI_CONFIG
	f.	The following six bytes indicate:
		☐ Event-replay-info.length (2 bytes)
		☐ ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
		☐ ConfigReportRsp.config-result: One of:
		accepted-config: 0x00 0x00
	Wait until the operating state is reached in both cases.	
	5. The	e simulated agent sends a fixed event report with one measurement.
Pass/Fail criteria	 The manager under test must respond either to the association request with an "accepted" message or to the Configuration Event Report with an "accepted-config". The measurement is correctly presented. 	
Notes	The ma	nager can request Get MDS while they are in the associated state.

TP ld		TP/PLT/MAN/CLASS/PF/BV-001							
TP label		Maximum APDU size: Peak Flow							
Coverage	Spec	[ISO/IEEE 11073-20601A]							
	Testable items	CommonCharac 4;M							
Test purpos	e	Check that:							
		If a manager receives APDU that is lawith an error (roer) code of protocol-v		receive buffer, it shall reply					
		The manager's receive buffer shall be specializations the manager supports apply to all APDUs regardless of whe	The buffer size limitiation	ns in this bullet and the next on					
Applicability	/	C_MAN_OXP_000 AND C_MAN_OX	P_018						
Other PICS									
Initial condi	tion	The manager under test is in the oper	ating state.						
Test proced	ure	The simulated agent sends a Confirmed variable event report:							
		a. ScanReportInfoVar. obs_scan	_var:						
		☐ Count =2							
		☐ Length = 1996							
		ObservationScan ::= {							
		obj-handle: 1							
		attributes: AttributeList ::= {							
		AVA-Type ::= {							
		attribute-id: 61441							
		attribute-value: '00(1970 bytes) 00'0							
		}							

	}		
	}		
	ObservationScan ::= {		
	obj-handle: 1		
	attributes: AttributeList ::= {		
	AVA-Type ::= {		
	attribute-id: 2646 (MDC_ATTR_NU_VAL_OBS_SIMP)		
	attribute-value: 500		
	}		
	}		
	}		
	2. Check the response of the manager under test.		
	3. The simulated agent sends a Confirmed fixed event report with one measurement.		
	4. Check the response of the manager under test.		
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".		
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".		
Notes			

TP Id		TP/PLT/MAN/CLASS/PF/BV-002		
TP label		Attribute-Value-Map. Order change. (0x0834)		
Coverage	Spec	[ISO/IEEE 11073-10421]		
	Testable	PEF12; M	PersBest12; M	FEV1S12; M
	items	ReadStatus12; M		
Test purpose	•	Check that:		
		For [Standard-Configuration, PEF object the [Attribute-Value-Map] attribute shall be present. The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_ VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS		
		[AND]		
		For [Standard-Configuration, Personal Best object] the [Attribute-Value-Map] attribute shall be present. The value of the [Attribute-Value-Map] attribute shall be value MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS		
		[AND]		
			EV1] the [Attribute-Value-Map] a ap] attribute shall be MDC_ATTI BS	
		[AND]		
	For [Standard-Configuration, Reading status] the [Attribute-Value-Map] attribute shall be present. The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC_BIT_STRING, then MDC_ATTR_TIME_STAMP_A		e	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_018		
Other PICS				

Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834). **Test procedure** The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of: MDC_ATTR_NU_VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS for PEF Object MDC_ATTR_NU_ VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS for Personal Best Object MDC ATTR NU VAL OBS SIMP then MDC ATTR TIME STAMP ABS for FEV1 Object MDC_ATTR_NU_VAL_OBS_BASIC_BIT_STRING then MDC_ATTR_TIME_STAMP_ABS for Reading status Object The simulated agent waits until it receives a confirmation. 2. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (PEF Object), of handle 2 (Personal Best object), of handle 3 (FEV1 Object) and of handle 5 (Reading status Object) to reverse the values to: MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_VAL_OBS_SIMP for PEF Object MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_ VAL_OBS_SIMP for Personal Best Object MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_VAL_OBS_SIMP for FEV1 Object MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_VAL_OBS_BASIC_BIT_STRING for Reading status Object 4. The simulated agent waits until it receives a confirmation. 5 Send a confirmed fixed format event report with the date (absolute-time-stamp) by a measurement data for every object. 6. The simulated agent waits until it receives a confirmation. 7. The simulated agent sends an association release request (normal). 8. The simulated agent waits until there is an association release response. 9. The simulated agent sends an association request using the same standard configuration that was used previously. If the manager under test responds with association request response with "acceptedunknown-config", then The simulated agent sends the confirmed configuration event report with the standard configuration. The simulated agent waits until there is a confirmation to the configuration event report that was sent. 11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (Observed value defined for every object, then MDC_ATTR_TIME_STAMP_ABS). The observations should be reasonable PEF, Personal Best, FEV1 and Reading status values. 12. The simulated agent waits until it receives a confirmation. Pass/Fail criteria In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). In steps 2, 6 and 12 verify that the manager under test uses I/min as the unit code for PEF and Personal best report, and it uses I as the unit code for FEV1 report (or reports the proper value after conversion to another unit code). In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).

	When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP ld		TP/PLT/MAN/CLASS/PF/BV-003			
TP label		Special values. Not a number – fixed format			
Coverage	Spec	[ISO/IEEE 11073-10	[ISO/IEEE 11073-10421]		
	Testable items	PEF12; M	PersBest12; M		FEV1S12; M
Test purpos	e	Check that:			
		Manager receives a	NaN value (fixed format ev	ent report) but i	t does not use this value.
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_018			
Other PICS	her PICS				
Initial condition The simulated agent and the manager under test are in the or configuration (0x0834).		est are in the ope	erating state using the standard		
Test procedure 1. The simulated agent sends a confirmed (Personal Best) and handle 3 (FEV1) converse NaN ([exponent 0, mantissa +(2**23 –1)]		and handle 3 (FEV1) conta	aining an obser\		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		rom the manager under test.	
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes This test case has been considered as an implicit test case.					

TP ld		TP/PLT/MAN/CLASS/PF/BV-004		
TP label	TP label Special values. Not a number – variable format			
Coverage	Spec	[ISO/IEEE 11073-10421]		
	Testable items	PEF20; C PersBest20; C FEV1S20; C		
Test purpose Check that: Manager receives a NaN value (variable format event report) but it does not use		ut it does not use this value.		
Applicability C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS				
Initial condition The simulated agent and the manager under test are in the operating state using configuration (0x0834).		erating state using the standard		
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF]).		
2. The simulated agent waits until it receives a confirmation from the		rom the manager under test.		

Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurements are displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/PF/BV-005		
TP label		Special values. Not at this resolution – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10421]		
	Testable items	PEF12; M	PersBest12; M	FEV1S12; M
Test purpose Check that: Manager receives NRes value (fixed format event report) but it does not use this value.		does not use this value.		
Applicability C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS	Other PICS			
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834).		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1)containing an observation value set to the value for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		rom the manager under test.
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurements are displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/PF/BV-006		
TP label Special values. Not at this resolution – variable format				
Coverage	Spec	[ISO/IEEE 11073-10421]		
	Testable items	PEF20; C PersBest20; C FEV1S20; C		
Test purpose Check that: Manager receives NRes value (variable format event report) bu it does not use		ı it does not use this value.		
Applicability C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS				
Initial condition The simulated agent and the manager under test are in the operating state usi configuration (0x0834).		erating state using the standard		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]). 		
2. The simulated agent waits until it receives a confirmation from the manager und		rom the manager under test.		

Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/PF/BV-007		
TP label		Special values. Positive infinity – fixed format		
Coverage	Spec	[ISO/IEEE 11073-10421]		
	Testable items	PEF12; M	PersBest12; M	FEV1S12; M
Test purpos	e	Check that: Manager receives a + INFINITY value (fixed format event report) bu it does not use this value.		rt) bu it does not use this value.
Applicability C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS				
Initial condition The simulated agent and the manager under test configuration (0x0834).		manager under test are in the op	erating state using the standard	
Test procedure 1. The simulated agent sends a confirmed fixed event report for hand (Personal Best) and handle 3 (FEV1) containing an observation various positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 – 2) = 1)		vation value set to the value for		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		rom the manager under test.
Pass/Fail criteria •		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes	This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/PF/BV-008			
TP label Special values. Positive infinity – variable format					
Coverage	Spec	[ISO/IEEE 11073-10421]			
	Testable items	PEF20; C PersBest20; C FEV1S20; C			
Test purpose Check that: Manager receives a + INFINITY value (variable format event report) but it does not value.		eport) but it does not use this			
Applicability C_MAN_OXP_000 AND C_MAN_OXP_018					
Other PICS					
Initial condition The simulated agent and the manager under test are in the operating state using configuration (0x0834).		erating state using the standard			
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 – 2) = 0x007FFFFE]).			
2. The simulated agent waits until it receives a confirmation from the manager und		from the manager under test.			

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/PF/BV-009 Special values. Negative infinity – fixed format				
TP label						
Coverage	Spec	[ISO/IEEE 11073-1	0421]			
	Testable items	PEF12; M	PersBest12; M	FEV1S12; M		
Test purpos	se	Check that: Manager receives a	a - INFINITY value (fixed format eve	ent report) but it does not use this value.		
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS						
Initial cond	ition	The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834).				
Test proced	lure	 The simulated agent sends a confirmed fixed event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 – 2) = 0x00800002]). 				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 				
Notes		This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/PF/BV-010						
TP label		Special values. Negativ	Special values. Negative infinity – variable format					
Coverage	Spec	[ISO/IEEE 11073-1042	[ISO/IEEE 11073-10421]					
	Testable items	PEF20; C	FEV1S20; C					
Test purpose		Check that: Manager receives a - INFINITY value (variable format event report) but it does not use this value.						
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_018						
Other PICS								
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834).						
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 – 2) = 0x00800002]).						
		2. The simulated agent waits until it receives a confirmation from the manager under test.						

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/PF/BV-011				
TP label		Special values. Reserved – fixed format				
Coverage	Spec	[ISO/IEEE 11073-10421]				
	Testable items	PEF12; M PersBest12; M FEV1S12		FEV1S12; M		
Test purpose		Check that: Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.				
Applicability	•	C_MAN_OXP_000 AND C_MAN_OXP_018				
Other PICS						
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834).				
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23 – 1) = 0x00800001]). The simulated agent waits until it receives a confirmation from the manager under test. 				
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).				
Notes		This test case has been considered as an implicit test case.				

TP ld		TP/PLT/MAN/CLASS/PF/BV-012				
TP label		Special values. Reserved – variable format				
Coverage	Spec	[ISO/IEEE 11073-1042 ⁻	1]			
Testable items		PEF20; C	Pe	ersBest20; C		FEV1S20; C
Test purpos	se	Check that:				
		Manager receives a Reserved for future use value (variable format event report) but it does not use this value.				
Applicability	y	C_MAN_OXP_000 AND	C_MAN_	OXP_018		
Other PICS						
Initial condition		The simulated agent an configuration (0x0834).		ager under test are i	in the ope	erating state using the standard

Test procedure	1. The simulated agent sends a confirmed variable event report for handle 1(PEF), handle 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23 – 1) = 0x00800001]).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/PF/BV-013					
TP label		Association procedure Mai	nager PF				
Coverage	Spec	[ISO/IEEE 11073-10421]					
	Testable	PF_AssocResp1; M	PF_AssocResp2; M	PF_AssocResp3; M			
	items	PF_AssocResp4; M	PF_AssocResp5; M	PF_AssocResp6; M			
		PF_AssocResp7; M	PF_AssocResp8; M	PF_AssocResp9; M			
		PF_AssocResp10; M	PF_AssocResp11; M	PF_AssocResp12; M			
Test purpos	e	Check that:					
		In the association response	e message sent by the Manager:				
		The result field shall be ser P11073-20601.	t to an appropriate response from	those defined in ISO/IEEE			
		[AND]					
		In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601					
		[AND]					
		The data-proto-info field sh	nall be filled in with a PhdAssociat	ionInformation structure			
		[AND]					
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)					
		[AND]					
			d with a single selected encoding Manager shall support at least the				
		[AND]					
		The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)					
		[AND]					
		The field functional-units shall have all bits reset except for those relating to a Test Association.					
		[AND]					
		The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)					
		[AND]					
		The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier					
		[AND]					

	The field dev-config-id shall be manager-config-response (0)						
	[AND]						
	The field data-req-mode-capab shall be 0						
	[AND]						
	The fields data-req-init-*-count shall be 0						
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_016						
Other PICS							
Initial condition	The manager is in the unassociated state.						
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:						
	□ protocol-version = '100000000000000000000000000000000000						
	□ encoding-rules= '10000000000000'B						
	□ nomenclature-version = '100000000000000000000000000000000000						
	☐ functional-units = '00000000000000000000000000000000000						
	□ system-type = '000000001000000000000000000000000000						
	□ dev-config-id = 16481						
	☐ data-rep-mode-capab =						
	data_req_mode_flags= '00000000000001'B						
	data_req_init_agent_count = 1						
	data_req_init_manager_count =0						
	□ option-list.length=0						
	2. The manager under test sends an association response. The fields of interest are:						
	a. APDU Type						
	☐ field-length = 2 bytes						
	☐ field-value = 0xE3 0x00 (AareApdu)						
	b. Result						
	☐ field- type = AssociateResult						
	☐ field-length = 2 bytes						
	☐ field-value = One of the following:						
	 If association is accepted, field-value=0x00 0x00. 						
	If association is rejected-permanent, field-value=0x00 0x01.						
	If association is rejected-transient, field-value=0x00 0x02.						
	 If association is accepted-unknown-config, field-value=0x00 0x03. 						
	If association is rejected-no-common-protocol, field-value=0x00 0x04.						
	 If association is rejected-no-common-parameter, field-value=0x00 0x05. 						
	If association is rejected–unknown = 0x00 0x06.						
	If association is rejected-unauthorized, field-value=0x00 0x07.						
	 If association is rejected–unsupported-assoc-version, field-value=0x00 0x08. 						
	 selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id)) 						
	d. data-proto-id						
	☐ field- type = DataProtoId						

	☐ field-length = 2 bytes	
	☐ field-value=0x50 0x79 (20601)	
e.	protocol-version	
	☐ field- type = Protocol Version	
	☐ field-length = 4 bytes (BITS-32)	
	☐ field-value=0x80 0x00 0x00 0x00	
f.	encoding-rules	
	☐ field-type = EncodingRules	
	ield-length = 2 bytes (BITS-16)	
	ield-value= depends on the encoding rules supported/selected, but only one can be supported at a time	
g.	nomenclature version	
	☐ field- type = NomenclatureVersion	
	☐ field-length = 4 bytes (BITS-32)	
	☐ field-value= Bit 0 must be set (nom-version1)	
h.	functional units	
	☐ field-type = FunctionalUnits	
	☐ field-length = 4 bytes (BITS-32)	
	☐ field-value =	
	Bit 0 must be 0	
	 Bits 1 and 2 may be set 	
	 The rest of the bits must not be set 	
i.	system type	
	☐ field- type = SystemType	
	☐ field-length = 4 bytes (BITS-32)	
	ield-value = 0x80 0x00 0x00 0x00 (sys-type-manager)	
j.	system-id	
	ield- type = OCTET STRING	
	☐ field-length = 8 bytes	
	ield-value = (EUI-64 manufacturer and device)	
k.	dev-config-id	
	☐ field- type = Configld	
	☐ field-length = 2 bytes	
	$\Box \text{field-value} = 0x00 \ 0x00 \ (\text{manager-config-response})$	
l.	data-req-mode-flags (DataReqModeCapab)	
	☐ field- type = DataReqModeFlags	
	☐ field-length = 2 bytes	
	$\Box \text{field-value} = 0x00\ 0x00$	
	□ manager response to data-req-mode-flags is always 0.	
m.	data-req-init-agent-count (DataReqModeCapab)	
	☐ field- type = INT-U8	
	☐ field-length = = 1 byte	
	$\Box \text{field-value} = 0x00$	

	n. data-req-init-manager-count (DataReqModeCapab)				
	☐ field- type = INT-U8				
	☐ field-length = = 1 byte				
	☐ field-value = 0x00				
Pass/Fail criteria	All checked values are as specified in the test procedure.				
Notes	Value for protocol-version has been modified according to [ISO/IEEE 11073-20601A].				
	data-req-init-agent-count verification has been updated according to IEEE PHD errata. See http://continua.plugfests.com/show_bug.cgi?id=787 for further details.				

A.12 Subgroup 2.3.12: Body composition analyser (BCA)

TP ld		TP/PLT/MAN/CLASS/BCA/BV-000					
TP label		Configuration Event Report. Body Composition Analyser standard configuration 2000					
Coverage Spec		[ISO/IEEE 11073-20601A]					
	Testable items	Cor	nfEventR	ep 18;M			
Test purpose	е	Che	eck that:				
		star	ndards sh	nall be able to acce	or more) of the ISO/IEEE 110 pt all the standard device cor able 23 under Gen-4.	173-104zz device specialization infigurations specified for the	
		to e	nter the		nd check attributes from the N	e standard configuration in order MDS object prior to final	
Applicability	,	C_N	MAN_OX	P_000 AND C_MA	N_OXP_027		
Other PICS							
Initial condit	ion	The simulated agent and the manager under test are in an unassociated state.					
Test procedu	ure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x07D0 (BCA).					
		2.	The ma	nager under test re	esponds with an association r	esponse, the field of interest is:	
			a. Res	sult			
				field- type = INT-l	J16		
				field-length =2 by	tes		
				field-value = 0x00	0 0x00 (accepted) or 0x00 0x0	03 (accepted-unknown-config)	
		If the result of the association response was "accepted-unknown-config"					
		3.	The sim 0x07D0		s a configuration event report	with config-report-id set to	
		4.	The ma	nager under test m	ust respond with:		
			a. API	DU Type			
				field-length =2 by	tes		
				field-value =0xE7	0x00 (PrstAdpu)		
			b. Inve	oke-id			
				field- type = INT-l	J16		
			☐ field-length =2 bytes				

	1		
			field-value = it must be the same as the invoke-id of the simulated agent's message.
	C.	Obj	-Handle:
			field- type = HANDLE
			field-length =2 bytes
			field-value = $0x00 0x00$
	d.	Eve	nt-time:
			field- type = INT-U32
			field-length =4 bytes
			field-value: 0xXX 0xXX
	e.	Eve	nt-type:
			field-length = 2 bytes
			field-value= MDC_NOTI_CONFIG
	f.	The	following six bytes indicate:
			Event-replay-info.length (2 bytes)
			ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
			ConfigReportRsp.config-result: One of:
			accepted-config: 0x00 0x00
	Wait un	til the	operating state is reached in both cases.
	5. The	e sim	ulated agent sends a fixed event report with one measurement.
Pass/Fail criteria	• The	e mar	nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
	• The	e mea	asurement is correctly presented.
Notes	The ma	nage	r can request Get MDS while they are in the associated state.

TP ld		TP/PLT/MAN/CLASS/BCA/BV-001		
TP label		Maximum APDU size: Body Composition Analyser		
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4; M		
	Spec	[IEEE 11073-10420]		
	Testable items	CommChar1; M		
Test purpos	е	Check that:		
		If a manager receives an APDU with an error (roer) code of prof	J that is larger than the manager tocol-violation.	r's receive buffer, it shall reply
		specializations the manager su	hall be at least as large as the la pports. The buffer size limitation of whether a standard or extende	s in this bullet and the next on
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_027	
Other PICS				

Initial condition	The manager under test is in the operating state.	
Test procedure	The simulated agent sends a Confirmed variable event report:	
	a. ScanReportInfoVar. obs_scan_var:	
	☐ Count =2	
	☐ Length = 7696	
	ObservationScan ::= {	
	obj-handle: 1	
	attributes: AttributeList ::= {	
	AVA-Type ::= {	
	attribute-id: 61441	
	attribute-value: '00(7670 bytes) 00'0	
	}	
	}	
	}	
	ObservationScan ::= {	
	obj-handle: 1	
	attributes: AttributeList ::= {	
	AVA-Type ::= {	
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)	
	attribute-value: 70	
	}	
	}	
	}	
	Check the response of the manager under test.	
	3. The simulated agent sends a Confirmed fixed event report with one measurement.	
	4. Check the response of the manager under test.	
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
Notes		

TP ld		TP/PLT/MAN/CLASS/BCA/BV-002		
TP label		Attribute-Value-Map. Order change		
Coverage Spec [IEEE 11073-10420]				
	Testable items	WeightNumClass 21; M	BodyHeight22; M	BodyFat23; M
Test purpose			TR_NU_VAL_OBS_SIMP, then	-Map] attribute shall be present

Applicability Other PICS Initial condition	For [Standard-Configuration, Body Height] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_NU_VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS. [AND] For [Standard-Configuration, Body Fat object] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS. C_MAN_OXP_000 AND C_MAN_OXP_027 The simulated agent and the manager under test are in the operating state using the standard
	configuration.
Test procedure	 The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of:
	MDC_ATTR_NU_ VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS for Body Weight Object
	MDC_ATTR_NU_ VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS for Body Height Object
	MDC_ATTR_NU_ VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_ABS for Body Fat Object
	2. The simulated agent waits until it receives a confirmation.
	3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Body Weight Object), of handle 2 (Body Height object) and of handle 3 (Body Fat Object) to reverse the values to:
	MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_ VAL_OBS_SIMP for Body Weight Object
	MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_ VAL_OBS_SIMP for Body Height Object
	MDC_ATTR_TIME_STAMP_ABS then MDC_ATTR_NU_ VAL_OBS_SIMP for Body Fat Object
	4. The simulated agent waits until it receives a confirmation.
	Send a confirmed fixed format event report with the date (absolute-time-stamp) by a measurement data for every object.
	6. The simulated agent waits until it receives a confirmation.
	7. The simulated agent sends an association release request (normal).
	8. The simulated agent waits until there is an association release response.
	9. The simulated agent sends an association request using the same standard configuration that was used previously.
	10. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (Observed value defined for every object, then MDC_ATTR_TIME_STAMP_ABS). The observations should be reasonable Body Weight, Body Height and Body Fat.
	12. The simulated agent waits until it receives a confirmation.

Pass/Fail criteria	• In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	• In steps 2, 6 and 12 verify that the manager under test uses kg as the unit code for Body Weight, it uses cm as the unit code for Body Height, and it uses % as the unit code for Body Fat report (or reports the proper value after conversion to another unit code).
	• In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP ld		TP/PLT/MAN/CLASS/BCA/BV-003		
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage Spec [IEEE 11073-10420]		[IEEE 11073-10420]		
	Testable items	WeightNumClass 21;M		
Test purpose	9	Check that:		
		For [Standard-Configuration, Body Weight] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS		
		Manager accepts the measurements (fixed format event report) and shows them correctly when the unit-code is changed.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_001		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration. (Body Weight Numeric standard configuration Unit code attribute is set to MDC_DIM_KILO_G)		
Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Body Weight Object) to set the values to: MDC_ATTR_NU_VAL_OBS_SIMP, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS.		
		2. The simulated agent waits until it receives a confirmation.		
		3. Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use pounds MDC_DIM_LB (1760).		
		4. The simulated agent waits until it receives a confirmation.		
		 The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_SIMP attribute. 		
		6. The simulated agent waits until it receives a confirmation.		

Pass/Fail criteria	 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).
	In steps 4 and 6, verify that the manager under test uses pounds as the unit code for the measurement reports.
Notes	

TP Id		TP/PLT/MAN/CLASS/BCA/BV-004		
TP label		Unit-Code Body Weight. Change from default kilograms to pounds – fixed format observation.		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	WeightNumClass 19; M		
Test purpose	•	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_001		
Other PICS				
Initial conditi	on	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedu	ıre	The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760).		
		2. The simulated agent waits until it receives a confirmation.		
		 Send a confirmed fixed format event report using a measurement in pounds followed by date and time stamp. 		
		4. The simulated agent waits until it receives a confirmation.		
		5. The simulated agent sends an association release request (normal).		
		6. The simulated agent waits until it receives an association release response.		
		7. The simulated agent sends an association request using the same configuration that was used initially.		
		8. If the manager under test responds with association request response with "accepted-unknown-config", then		
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 		
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 		
		9. The simulated agent sends a fixed event report with an observation in kilograms followed by date and time stamp.		
		10. The simulated agent waits until it receives a confirmation.		

Pass/Fail criteria	In step 4, verify that the manager under test is able to accept the data properly and applies pounds to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	In step 10, verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP ld		TP/PLT/MAN/CLASS/BCA/BV-005	
TP label		Unit-Code Body Weight. Do not change from default kilograms to pounds – fixed format observation	
Coverage	Spec	[IEEE 11073-10420]	
	Testable items	WeightNumClass 19; M	
Test purpose	•	Check that:	
		For [Standard-Configuration] the [Unit-Code] attribute shall be present	
		The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G.	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_001))	
Other PICS			
Initial conditi	on	The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedu	ire	The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760).	
		2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.	
		3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in pounds followed by date and time stamp.	
		4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.	
		5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.	
Pass/Fail criteria		In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.	
		In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.	
		In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.	
Notes			

TP ld		TP/PLT/MAN/CLASS/BCA/BV-006	
TP label		Unit-Code Body Weight. Use default kilograms – variable format observation	
Coverage	Spec	[IEEE 11073-10420]	
	Testable items	WeightNumClass 19; M	
Test purpos	e	Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G	
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_027	
Other PICS			
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.	
Test procedure		 Send a confirmed variable format event report using a measurement in kilograms. The simulated agent waits until it receives a confirmation. 	
Pass/Fail criteria		Verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).	
Notes			

TP ld		TP/PLT/MAN/CLASS/BCA/BV-007		
TP label		Unit-Code Body Weight. Change from default kilograms to pounds – variable format observation		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	WeightNumClass 19; M		
Test purpos	ie .	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_KILO_G		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_001		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		Send a confirmed variable format event report to set the unit code to pounds MDC_DIM_LB (1760) for handle 1 (Body Weight Object) and a measurement in pounds.		
		2. The simulated agent waits until it receives a confirmation.		
		3. Send a second confirmed variable format event report with just a measurement in pounds (i.e., do not transmit the unit-code attribute in the event report).		
		4. The simulated agent waits until it receives a confirmation.		
		5. The simulated agent sends an association release request (normal).		
		6. The simulated agent waits until it receives an association release response.		

	8.	If the manager under test responds with association request response with "accepted-unknown-config", then
		 The simulated agent sends the confirmed configuration event report with the standard configuration.
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	9.	The simulated agent sends a confirmed variable event report with an observation in kilograms followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to kilograms by the standard configuration).
	10.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	•	In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies pounds to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	•	In step 10, verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes		

TP ld		TP/PLT/MAN/CLASS/BCA/BV-008			
TP label		Unit-Code Body Height. Change from default centimetres to inches – fixed format observation			
Coverage	Spec	[IEEE 11073-10420]			
	Testable items	BodyHeight20; M			
Test purpos	e	Check that:			
		For [Standard-Configuration] the [Unit-Code] attribute shall be present			
		The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M.			
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_002			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376).			
		2. The simulated agent waits until it receives a confirmation.			
		3. Send a confirmed fixed format event report using a measurement in inches followed by date and time stamp.			
		4. The simulated agent waits until it receives a confirmation.			
		5. The simulated agent sends an association release request (normal).			
		6. The simulated agent waits until it receives an association release response.			
		7. The simulated agent sends an association request using the same configuration that was used initially.			
		8. If the manager under test responds with association request response with "accepted-unknown-config", then			
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 			

	•	The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
		he simulated agent sends a fixed event report with an observation in centimetres illowed by date and time stamp.
	10. Th	he simulated agent waits until it receives a confirmation.
Pass/Fail criteria	a	a step 4, verify that the manager under test is able to accept the data properly and pplies inches to the observation (e.g. if there is a UI, verify that the measurement and ate are displayed properly even if they are converted to a different set of units).
	a	n step 10, verify that the manager under test is able to accept the data properly and pplies centimetres to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes		

TP label TP/PLT/MAN/CLASS/BCA/BV-009 Unit-Code Body Height. Do not change from default centimetres to inches – fixed format observation Spec [IEEE 11073-10420] Testable items Coverage Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, rore message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, rore message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.						
Coverage Spec [IEEE 11073-10420] Testable items BodyHeight20; M Test purpose Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	TP Id		TP/PLT/MAN/CLASS/BCA/BV-009			
Test purpose Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	TP label		, ,			
Test purpose Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Coverage	Spec	[IEEE 11073-10420]			
For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager			BodyHeight20; M			
The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) Other PICS Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Test purpose	•	Check that:			
Applicability C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) The simulated agent and the manager under test are in the operating state using the standard configuration. Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager			For [Standard-Configuration] the [Unit-Code] attribute shall be present			
The simulated agent and the manager under test are in the operating state using the standard configuration. 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager			The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M			
Initial condition The simulated agent and the manager under test are in the operating state using the standard configuration. 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Applicability		C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002))			
Test procedure 1. The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Other PICS					
handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). 2. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Initial conditi	on				
release association or rorj message or until TO cer-mds expires. 3. If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager	Test procedu	ire				
report using a measurement in inches followed by date and time stamp. 4. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager						
release association or rorj message or TO cer-mds expires. 5. If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed. Pass/Fail criteria • In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager						
 have been properly received and displayed. Pass/Fail criteria In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager 						
in stop =, roinj that manager contact a committation, or root mas expired, or manager						
	Pass/Fail criteria					
 In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message. 						
 In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data. 						
Notes	Notes					

TP ld		TP/PLT/MAN/CLASS/BCA/BV-010		
TP label		Unit-Code Body Height. Use default centimetres – variable format observation		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	BodyHeight20; M		
Test purpose	e	Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_027		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		 Send a confirmed variable format event report using a measurement in centimetres. The simulated agent waits until it receives a confirmation. 		
Pass/Fail criteria		Verify that the manager under test is able to accept the data properly and applies centimetres to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).		
Notes				

TP ld		TP/PLT/MAN/CLASS/BCA/BV-011		
TP label		Unit-Code Body Height. Change from default centimetres to inches – variable format observation		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	BodyHeight20; M		
Test purpos	е	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_CENTI_M		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_002		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		Send a confirmed variable format event report to set the unit code to inches MDC_DIM_INCH (1376) for handle 2 (Body Height Object) and a measurement in inches.		
		2. The simulated agent waits until it receives a confirmation.		
		3. Send a second confirmed variable format event report with just a measurement in inches (i.e., do not transmit the unit-code attribute in the event report).		
		4. The simulated agent waits until it receives a confirmation.		
		5. The simulated agent sends an association release request (normal).		

	6.	The simulated agent waits until it receives an association release response.	
	7.	7. The simulated agent sends an association request using the same configuration that was used initially.	
	8.	If the manager under test responds with association request response with "accepted-unknown-config", then	
		 The simulated agent sends the confirmed configuration event report with the standard configuration. 	
		 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 	
	9.	The simulated agent sends a confirmed variable event report with an observation in centimetres followed by date and time stamp (i.e., do not send the unit-code attribute it should be set to kilograms by the standard configuration).	
	10.	The simulated agent waits until it receives a confirmation.	
Pass/Fail criteria	•	In steps 2 and 4, verify that the manager under test is able to accept the data properly and applies inches to the observations (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).	
	•	In step 10, verify that the manager under test is able to accept the data properly and applies centimetres to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).	
Notes			

TP Id		TP/PLT/MAN/CLASS/BCA/BV-012			
TP label		Unit-Code Body Fat. Change from default % to kilograms/pounds – fixed format observation			
Coverage	Spec	[IEI	[IEEE 11073-10420]		
	Testable items	Вос	dyFat21; M		
Test purpose	9	Che	eck that:		
		For	[Standard-Configuration] th	e [Unit-Code] attribute shall be p	present
		The	value of the [Unit-Code] at	ribute shall be MDC_DIM_PER	CENT
Applicability		C_I	MAN_OXP_000 AND C_MA	N_OXP_027 AND C_MAN_BCA	A_003
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure		1.	The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 3 (Body fat Object) to kilograms nomenclature code MDC_DIM_KILO_G (1731).		
		2.	The simulated agent waits	until it receives a confirmation.	
		3.	 Send a confirmed fixed format event report using a measurement in kilograms followed by date and time stamp. 		
		4. The simulated agent waits until it receives a confirmation.			
		5. The simulated agent sends a confirmed variable event report to change the Unit-Code handle 3 (Body fat Object) to pounds nomenclature code MDC_DIM_LB (1760).			
		6. The simulated agent waits until it receives a confirmation.			
		7. Send a confirmed fixed format event report using a measurement in kilograms followed by date and time stamp.			
		8.	The simulated agent waits	until it receives a confirmation.	

	9. The simulated agent sends an association release request (normal).
	10. The simulated agent waits until it receives an association release response.
	11. The simulated agent sends an association request using the same configuration that was used initially.
	12. If the manager under test responds with association request response with "accepted-unknown-config", then
	 The simulated agent sends the confirmed configuration event report with the standard configuration.
	 The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent.
	13. The simulated agent sends a fixed event report with an observation in $\%$ followed by date and time stamp.
	14. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In step 4, verify that the manager under test is able to accept the data properly and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 8, verify that the manager under test is able to accept the data properly and applies pounds to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
	 In step 14, verify that the manager under test is able to accept the data properly and applies % to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP ld		TP/PLT/MAN/CLASS/BCA/BV-013		
TP label		Unit-Code Body Fat. Do not change from default % to kilograms/pounds – fixed format observation		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	BodyFat21; M		
Test purpos	e	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] at	ttribute shall be MDC_DIM_PER	CENT
Applicability		C_MAN_OXP_000 AND C_MA	AN_OXP_027 AND (NOT(C_MAI	N_BCA_003))
Other PICS				
Initial condition		The simulated agent and the months configuration.	nanager under test are in the ope	erating state using the standard

Test procedure		The simulated agent sends a confirmed variable event report to change the Unit-Code of handle 3 (Body Fat Object) to kilograms nomenclature code MDC_DIM_KILO_G (1731).
	2.	The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires.
	3.	If the manager has sent a confirmation in step 2, send a confirmed fixed format event report using a measurement in inches followed by date and time stamp.
	4.	The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires.
	5.	If the manager has sent a confirmation in step 4, ask to the operator if the measurements have been properly received and displayed.
Pass/Fail criteria	•	In step 2, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 4, verify that manager sends a confirmation, or TOcer-mds expires, or manager sends a roer message, abrt message, release association or rorj message.
	•	In step 5, verify that measurements do not appear, or if they do appear, they are somehow designated as 'unsupported' data.
Notes		

TP Id		TP/PLT/MAN/CLASS/BCA/BV-014		
TP label		Unit-Code Body Fat. Use default % – variable format observation		
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	BodyFat21; M		
Test purpos	se	Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_PERCENT		
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_027		
Other PICS				
Initial condition The simulated agent and the manager under test are in the operating state using configuration.				
Test procedure		Send a confirmed variable format event report using a measurement in centimetres.		
		2. The simulated agent waits until it receives a confirmation.		
centimetres to the		Verify that the manager under test is able to accept the data properly and applies centimetres to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).		
Notes				

TP ld	TP/PLT/MAN/CLASS/BCA/BV-015
TP label	Unit-Code Body Fat. Change from default % to kilograms/pounds – variable format observation

Coverage	Spec	[IEEE 11073-10420]			
	Testable items	BodyFat21; M			
Test purpose		Check that:			
		For [Standard-Configura	ition] the [Unit-Code] attrib	oute shall be present	
		The value of the [Unit-Co	ode] attribute shall be MD0	C_DIM_PERCENT	
Applicability		C MAN OXP 000 AND	C_MAN_OXP_027 AND	C MAN BCA 003	
Other PICS					
		T			
Initial conditi	on	configuration.	d the manager under test a	are in the operating state using the standard	
Test procedu	re			t to set the unit code to kilograms y Fat Object) and a measurement in	
		2. The simulated agen	t waits until it receives a c	onfirmation.	
				nt report with just a measurement in attribute in the event report).	
		4. The simulated agen	t waits until it receives a c	onfirmation.	
		5. Send a confirmed variable format event report to set the unit code to pounds MDC_DIM_LB (1760) for handle 3 (Body Fat Object) and a measurement in pounds.			
		6. The simulated agent waits until it receives a confirmation.			
		7. Send a second confirmed variable format event report with just a measurement in pounds (i.e., do not transmit the unit-code attribute in the event report).			
		8. The simulated agent waits until it receives a confirmation.			
		9. The simulated agen	9. The simulated agent sends an association release request (normal).		
		10. The simulated agen	t waits until it receives an	association release response.	
		11. The simulated agen used initially.	The simulated agent sends an association request using the same configuration that was used initially.		
		12. If the manager unde unknown-config", th		ciation request response with "accepted-	
		The simulated a standard config		d configuration event report with the	
			agent waits until it receives vent report just sent.	s a confirmation from the confirmed	
		followed by date and		ble event report with an observation in % send the unit-code attribute it should be set	
		14. The simulated agen	t waits until it receives a c	onfirmation.	
Pass/Fail criteria		and applies kilogran	ns to the observations (e.g	er test is able to accept the data properly g. if there is a UI, verify that the y even if they are converted to a different	
		and applies pounds	to the observations (e.g.	er test is able to accept the data properly if there is a UI, verify that the measurement are converted to a different set of units).	
		• In step 14, verify that the manager under test is able to accept the data properly and applies centimetres to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units).			
Notes					

TP Id		TP/PLT/MAN/CLASS/BCA/BV-016			
TP label		Special values. Not a number – fixed format			
Coverage	Spec	[IEEE 11073-10420]			
	Testable items	WeightNumClass 21; M	BodyHeight22; M	BodyFat23; M	
Test purpos	se .	Check that:			
		Manager receives a NaN va	alue (fixed format event report) but i	t does not use this value.	
Applicability	y	C_MAN_OXP_000 AND C_	MAN_OXP_027		
Other PICS					
Initial condition The simulated agent and the manager under test are in the operation.		erating state using the standard			
 Test procedure The simulated agent sends a confirmed fixed event report for han handle 2 (Body Height) and handle 3 (Body Fat) containing an obfor NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF]) and The simulated agent waits until it receives a confirmation from the 		g an observation with the value F]) and a time stamp.			
Pass/Fail criteria		 The simulated agent waits until it receives a confirmation from the manager under test. Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes This test case has been considered as an implicit test case.					

TP Id		TP/PLT/MAN/CLASS/BCA/BV-017			
TP label		Special values. Not a number	s. Not a number – variable format		
Coverage	Spec	[IEEE 11073-10420]			
	Testable items	WeightNumClass 26; M	BodyHeight38; M	BodyFat39; M	
Test purpose	•	Check that:			
		Manager receives a NaN va	lue (variable format event report) b	ut it does not use this value.	
Applicability		C_MAN_OXP_000 AND C_I	MAN_OXP_027		
Other PICS					
Initial condition The simulated agent and the manager under test are in the operating state u configuration.		erating state using the standard			
hand for Na		handle 2 (Body Height) for NaN ([exponent 0, m	nds a confirmed variable event rep and handle 3 (Body Fat) containing nantissa +(2**23 –1) = 0x007FFFFI aits until it receives a confirmation f	g an observation with the value F]).	
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).			
Notes		This test case has been con	sidered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/BCA/BV-018			
TP label Special values. Not at this resolution – fixed format					
Coverage	Spec	[IEEE 11073-10420]			
	Testable items	WeightNumClass 21; M	BodyHeight22; M	BodyFat23; M	
Test purpose	e	Check that: Manager receives NRes va	lue (fixed format event report) but it	t does not use this value.	
Applicability	,	C_MAN_OXP_000 AND C_	MAN_OXP_027		
Other PICS					
Initial condit	ion	The simulated agent and th configuration.	e manager under test are in the op	erating state using the standard	
 Test procedure The simulated agent sends a confirmed fixed event report for handle 1 (Body handle 2 (Body Height) and handle 3 (Body Fat) containing an observation was for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager of the confirmation from the confirmation from		g an observation with the value and a time stamp.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 			
Notes This test case		This test case has been cor	nsidered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/BCA/BV-019		
TP label		Special values. Not at this re	esolution – variable format	
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	WeightNumClass 26; M	BodyHeight38; M	BodyFat39; M
Test purpos	Test purpose Check that: Manager receives NRes value (variable format event report) but it does not use this value.		ut it does not use this value.	
Applicability	1	C_MAN_OXP_000 AND C_	MAN_OXP_027	
Other PICS				
Initial condit	tial condition The simulated agent and the manager under test are in the operating state using the s configuration.			perating state using the standard
Test procedure 1. The simulated agent sends a confirmed variable event report for handle 2 (Body Height) and handle 3 (Body Fat) containing an o for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]).		ng an observation with the value).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes This test case has been considered as a		nsidered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/BCA/BV-020			
TP label		Special values. Positive inf	inity – fixed format		
Coverage	Spec	[IEEE 11073-10420]			
	Testable items	WeightNumClass 21; M	BodyHeight22; M	BodyFat23; M	
Test purpos	e	Check that:			
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.			
Applicability	y	C_MAN_OXP_000 AND C	_MAN_OXP_027		
Other PICS					
Initial condi	tion	The simulated agent and the manager under test are in the operating state using the star configuration.			
Test procedure		1. The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 -2) = 0x007FFFFE]) and a time stamp.			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).			
Notes This test case has been considered as an implicit test case.					

TP ld		TP/PLT/MAN/CLASS/BCA/BV-021				
TP label		Special values. Positive infi	Special values. Positive infinity – variable format			
Coverage	Spec	[IEEE 11073-10420]				
	Testable items	WeightNumClass 26; M	BodyHeight38; M	BodyFat39; M		
Test purpos	se	Check that:				
		Manager receives a + INFII value.	NITY value (variable format even	nt report) but it does not use this		
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_027				
Other PICS						
Initial condi	ition	The simulated agent and the configuration.	ne manager under test are in the	operating state using the standard		
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**23 -2) = 0x007FFFFE]).				
		2. The simulated agent waits until it receives a confirmation from the manager under test.				
Pass/Fail criteria		as if they were an actu		e data, but does not use the values a UI, verify that the measurement surement).		

Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/BCA/BV-022		
TP label		Special values. Negative in	finity – fixed format	
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	WeightNumClass 21; M	BodyHeight22; M	BodyFat23; M
Test purpos	se	Check that: Manager receives a - INFIN	IITY value (fixed format even	t report) but it does not use this value.
Applicabilit	у	C_MAN_OXP_000 AND C_	MAN_OXP_027	
Other PICS				
Initial condi	ition	The simulated agent and the manager under test are in the operating state using the star configuration.		
Test procedure 1. The simulated agent sends a confirmed fixed event report for handle 1 (Bod handle 2 (Body Height) and handle 3 (Body Fat) containing an observation of for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 –2) = 0x008 time stamp.			ntaining an observation with the value	
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes This test case has been considered as an implicit test case.			ase.	

TP ld		TP/PLT/MAN/CLASS/BCA/BV-023		
TP label		Special values. Negative in	nfinity – variable format	
Coverage	Spec	[IEEE 11073-10420]		
	Testable items	WeightNumClass 26; M	BodyHeight38; M	BodyFat39; M
Test purpos	Check that: Manager receives a - INFINITY value (variable format event report) but it does not use value.			report) but it does not use this
Applicabilit	у	C_MAN_OXP_000 AND C	_MAN_OXP_027	
Other PICS				
Initial cond	ndition The simulated agent and the manager under test are in the operating state using the stand configuration.			perating state using the standard
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**23 –2) = 0x00800002]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP Id		TP/PLT/MAN/CLASS/BCA/BV-024						
TP label		Special values. Reserved – fixed format						
Coverage	Spec	[IEEE 11073-10420]	[IEEE 11073-10420]					
	Testable items	WeightNumClass 21; M	WeightNumClass 21; M BodyHeight22; M BodyFat23; M					
Test purpose		Check that: Manager receives a Reserved for future use value (fixed format event report) but it does not						
use this value. Applicability C_MAN_OXP_000 AND C_MAN_OXP_027								
Other PICS								
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.						
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value that is reserved (Reserved for future use, [exponent 0, mantissa –(2**23–1) = 0x00800001]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 						
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).						
Notes		Notes This test case has been considered as an implicit test case.						

TP ld		TP/PLT/MAN/CLASS/BCA/BV-025						
TP label Special values. Reserved – variable format								
Coverage	Spec	[IEEE 11073-10420]	[IEEE 11073-10420]					
	Testable items	WeightNumClass 26; M	WeightNumClass 26; M BodyHeight38; M BodyFat39; M					
Test purpose		Check that:						
		Manager receives a Reserved for future use value (variable format event report) but it does not use this value.						
Applicability C_MAN_OXP_000 AND C_MAN_OXP_027								
Other PICS								
Initial condition		The simulated agent and th configuration.	e manager under test are in the o	operating state using the standard				

Test procedure	1. The simulated agent sends a confirmed variable event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**23–1) = 0x00800001]).
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/BCA/BV-026						
TP label		Association procedure Mar	Association procedure Manager BCA					
Coverage	Spec	[IEEE 11073-10420]						
	Testable	ManProcAsResp1; M	ManProcAsResp2; M	ManProcAsResp3; M				
	items	ManProcAsResp4; M	ManProcAsResp5; M	ManProcAsResp6; M				
		ManProcAsResp7; M	ManProcAsResp8; M	ManProcAsResp9; M				
		ManProcAsResp10; M	ManProcAsResp11; M	ManProcAsResp12; M				
		ManProcAsResp13; C						
Test purpos	se	Check that:						
		In the association response	e message sent by the Manager:					
		The result field shall be set to an appropriate response from those defined in ISO/IEEE P11073-20601.						
		[AND]						
		In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601						
		[AND]						
		The data-proto-info field shall be filled in with a PhdAssociationInformation structure						
		[AND]						
		The version of the data exchange protocol shall be set to protocol-version1 (i.e., protocol-version = 0x80000000)						
		[AND]						
		The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules						
		[AND]						
		The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)						
		[AND]						
		The field functional-units shall have all bits reset except for those relating to a Test Association.						
		[AND]						
		The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)						
		[AND]						
		The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier						

	FANDI				
	[AND]				
	The field dev-config-id shall be manager-config-response (0)				
	[AND]				
	The field data-req-mode-capab shall be 0				
	[AND]				
	The fields data-req-init-*-count shall be 0				
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_027				
Other PICS					
Initial condition	The manager is in the unassociated state.				
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:				
	□ protocol-version = '100000000000000000000000000000000000				
	□ encoding-rules= '10000000000000'B				
	□ nomenclature-version = '100000000000000000000000000000000000				
	☐ functional-units = '00000000000000000000000000000000000				
	□ system-type = '000000010000000000000000000000000000				
	dev-config-id = 16481				
	☐ data-rep-mode-capab =				
	data_req_mode_flags= '00000000000001'B				
	data_req_init_agent_count = 1				
	data_req_init_manager_count =0				
	□ option-list.length=0				
	2. The manager under test sends an association response. The fields of interest are:				
	a. APDU Type				
	☐ field-length = 2 bytes				
	☐ field-value = 0xE3 0x00 (AareApdu)				
	b. Result				
	☐ field- type = AssociateResult				
	☐ field-length = 2 bytes				
	☐ field-value = One of the following:				
	 If association is accepted, field-value=0x00. 				
	 If association is rejected-permanent, field-value=0x00 0x01. 				
	 If association is rejected-transient, field-value=0x00 0x02. 				
	 If association is accepted-unknown-config, field-value=0x00 0x03. 				
	 If association is rejected-no-common-protocol, field-value=0x00 0x04. 				
	 If association is rejected -no-common-parameter, field-value=0x00 0x05. 				
	■ If association is rejected-unknown = 0x00 0x06.				
	 If association is rejected-unauthorized, field-value=0x00 0x07. 				
	 If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. 				
	c. selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))				

ــا	data parta id
d.	data-proto-id
	ield-type = DataProtold
	ifield value=0x50 0x70 (20601)
_	ifield-value=0x50 0x79 (20601)
e.	protocol-version
	ifield- type = Protocol Version
	ifield-length = 4 bytes (BITS-32)
	ifield-value=0x80 0x00
f.	encoding-rules
	ield-type = EncodingRules
	☐ field-length = 2 bytes (BITS-16)
	field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	■ Bit 0 must be 0
	 Bits 1 and 2 may be set
	 The rest of the bits must not be set
i.	system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 (sys-type-manager)
j.	system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field-value = (EUI-64 manufacturer and device)
k.	dev-config-id
	☐ field- type = Configld
	☐ field-length = 2 bytes
	☐ field-value = 0x00 (manager-config-response)
l.	data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	☐ field-value = 0x00
	□ manager response to data-req-mode-flags is always 0.
m.	data-req-init-agent-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 byte

		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All chec	xed values are as specified in the test procedure.
Notes	Value fo	r protocol-version has been modified according to [ISO/IEEE 11073-20601A].

A.13 Subgroup 2.3.13: Basic electrocardiograph (ECG)

TP ld		TP/PLT/MAN/CLASS/ECG/BV-000				
TP label		Configuration Event Report. Basic ECG specialization/Heart Rate profile standard configuration 600				
Coverage	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M				
Test purpose	•	Check that:				
		A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.				
		Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.				
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_029				
Other PICS						
Initial conditi	on	The simulated agent and the manager under test are in an unassociated state.				
Test procedu	ire	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x0258 (HR).				
		2. The manager under test responds with an association response, the field of interest is:				
		a. Result				
		☐ field- type = INT-U16				
		☐ field-length =2 bytes				
		☐ field-value = 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)				
		If the result of the association response was "accepted-unknown-config"				
		 The simulated agent sends a configuration event report with config-report-id set to 0x0258. 				
		4. The manager under test must respond with:				
		a. APDU Type				
		☐ field-length =2 bytes				
		☐ field-value =0xE7 0x00 (PrstAdpu)				
		b. Invoke-id				
		☐ field- type = INT-U16				
		☐ field-length =2 bytes				

	1		
			field-value = it must be the same as the invoke-id of the simulated agent's message.
	c.	Obj	i-Handle:
			field- type = HANDLE
			field-length =2 bytes
			field-value = 0x00
	d.	Eve	ent-time:
			field- type = INT-U32
			field-length =4 bytes
			field-value: 0xXX
	e.	Eve	ent-type:
			field-length = 2 bytes
			field-value = MDC_NOTI_CONFIG
	f.	The	e following six bytes indicate:
			Event-replay-info.length (2 bytes)
			ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
			ConfigReportRsp.config-result: One of:
			■ accepted-config: 0x00
	Wait ur	ntil the	e operating state is reached in both cases.
	5. Th	e sim	ulated agent sends a fixed event report with one measurement.
Pass/Fail criteria			nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
_	• Th	e me	asurement is correctly presented.
Notes	The ma	nage	er can request Get MDS while they are in the associated state.

TP Id		TP/PLT/MAN/CLASS/ECG/BV-001						
TP label Maximum APDU size: Basic ECG specialization/Hea			CG specialization/Heart Rate pro	ofile without PM-Store				
Coverage	Spec	[ISO/IEEE 11073-20601A]						
	Testable items	CommonCharac 4;M						
	Spec	[IEEE 11073-10406]						
	Testable items	CommChar1; M						
Test purpos	se .	Check that:						
		If a manager receives an APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.						
		specializations the manager su	hall be at least as large as the la pports. The buffer size limitation of whether a standard or extende	is in this bullet and the next on				
Applicability	у	C_MAN_OXP_000 AND C_MA	N_OXP_029					
Other PICS								

Initial condition	The manager under test is in the operating state.					
Test procedure	The simulated agent sends a Confirmed variable event report:					
	a. ScanReportInfoVar. obs_scan_var:					
	☐ Count =2					
	☐ Length = 1248					
	ObservationScan ::= {					
	obj-handle: 1					
	attributes: AttributeList ::= {					
	AVA-Type ::= {					
	attribute-id: 61441					
	attribute-value: '00(1224 bytes) 00'0					
	}					
	}					
	}					
	ObservationScan ::= {					
	obj-handle: 1					
	attributes: AttributeList ::= {					
	AVA-Type ::= {					
	attribute-id: 2636 (2646 (MDC_ATTR_NU_VAL_OBS_BASIC)					
	attribute-value: 79					
	}					
	}					
	}					
	Check the response of the manager under test.					
	3. The simulated agent sends a Confirmed fixed event report with one measurement.					
	4. Check the response of the manager under test.					
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".					
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".					
Notes						

TP ld		TP/PLT/MAN/CLASS/ECG/BV-002		
TP label		Maximum APDU size: Basic ECG specialization/ Simple ECG profile without PM-Store		
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4;M		
	Spec	[IEEE 11073-10406]		
	Testable items	CommChar1; M		

Toot nurnees	Chook that:				
Test purpose	Check that:				
	If a manager receives an APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.				
	The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_030				
Other PICS					
Initial condition	The manager under test is in the operating state.				
Test procedure	The simulated agent sends a Confirmed variable event report:				
	a. ScanReportInfoVar. obs_scan_var:				
	☐ Count =2				
	☐ Length = 7136				
	ObservationScan ::= {				
	obj-handle: 9				
	attributes: AttributeList ::= {				
	AVA-Type ::= {				
	attribute-id: 61441				
	attribute-value: '00(7112 bytes) 00'0				
	}				
	}				
	}				
	ObservationScan ::= {				
	obj-handle: 9				
	attributes: AttributeList ::= {				
	AVA-Type ::= {				
	attribute-id: 2454 (MDC_ATTR_UNIT_CODE)				
	attribute-value: 2194 (MDC_DIM_MILLI_VOLT)				
	}				
	}				
	}				
	Check the response of the manager under test.				
	3. The simulated agent sends a Confirmed variable event report with one attribute update.				
	4. Check the response of the manager under test.				
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".				
	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".				
Notes					

TP ld	TP/PLT/MAN/CLASS/ECG/BV-003	
TP label	Maximum APDU size: Basic ECG Specialization/Heart Rate profile with PM-Store	

Coverage	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	CommonCharac 4;M				
	Spec	[IEEE 11073-10406]				
	Testable items	CommChar1; M				
Test purpose	e	Check that:				
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.				
		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_029				
Other PICS						
Initial condit	ion	The manager under test is in the operating state.				
Test procedu	ure	The simulated agent sends a Confirmed variable event report:				
•		a. ScanReportInfoVar. obs_scan_var:				
		☐ Count = 2				
		☐ Length = 64472				
		ObservationScan ::= {				
		obj-handle: 1				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
		attribute-id: 61441				
		attribute-value: '00(64448 bytes) 00'0				
		}				
		}				
		}				
		ObservationScan ::= {				
		obj-handle: 1				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
		attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)				
		attribute-value: 79				
		}				
		}				
		}				
		Check the response of the manager under test.				
		3. The simulated agent sends a confirmed fixed format event report with one measurement				
		4. Check the response of the manager under test.				

Pass/Fail criteria	 In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report". In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes	

TP Id		TP/PLT/MAN/CLASS/ECG/BV-004				
TP label		Maximum APDU size: Basic ECG/Simple ECG profile with PM-Store				
Coverage	Spec	[ISO/IEEE 11073-20601A]				
Testable items		CommonCharac 4;M				
	Spec	[IEEE 11073-10406]				
	Testable items	CommChar1; M				
Test purpos	se	Check that:				
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation. The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_030				
Other PICS						
Initial condi	tion	The manager under test is in the operating state.				
Test proced	lure	The simulated agent sends a Confirmed variable event report:				
, , , , , , , , , , , , , , , , , , ,		a. ScanReportInfoVar. obs_scan_var:				
		☐ Count = 2				
		☐ Length = 64472				
		ObservationScan ::= {				
		obj-handle: 9				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
		attribute-id: 61441				
		attribute id. 01441 attribute-value:				
		'00(64448 bytes) 00'0				
		}				
		}				
		}				
		ObservationScan ::= {				
		obj-handle: 9				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
		attribute-id: 2454 (MDC_ATTR_UNIT_CODE)				
		attribute value: 2194 (MDC DIM MILLI VOLT)				
		· · ·				

		}
	 3. 4. 	Check the response of the manager under test. The simulated agent sends a Confirmed variable event report with one attribute update. Check the response of the manager under test.
Pass/Fail criteria	•	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report". In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-005				
TP label		Basic ECG Specialization/Heart Rate profile. Attribute-Value-Map. Order change				
Coverage	Spec	[IEE	[IEEE 11073-10406]			
	Testable items	Hea	artRate22; M			
Test purpos	е	Che	eck that:			
		For	[Standard-Configuration] th	e [Attribute-Value-Map] attribute	shall be present	
			value of the [Attribute-Valu n MDC_ATTR_TIME_STAM	e-Map] attribute shall be MDC_/ IP_REL	ATTR_NU_VAL_OBS_BASIC,	
Applicability	,	C_N	MAN_OXP_000 AND C_MA	N_OXP_029		
Other PICS						
Initial condit	ion	The simulated agent and the manager under test are in the operating state using the standard configuration.				
Test procedu	ure	The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of:				
		 MDC_ATTR_NU_VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_REL for Heart Rate Object 				
		2.	The simulated agent waits	until it receives a confirmation.		
		3. The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 (Heart Rate Object) to reverse the values to:				
		 MDC_ATTR_TIME_STAMP_REL then MDC_ATTR_NU_VAL_OBS_BASIC for Heart Rate Object 				
		4. The simulated agent waits until it receives a confirmation.				
		Send a confirmed fixed format event report with the date (relative-time-stamp) by a measurement data for Heart Rate Object.				
		6. The simulated agent waits until it receives a confirmation.				
		7. The simulated agent sends an association release request (normal).				
			8. The simulated agent waits until there is an association release response.			
		9. The simulated agent sends an association request using the same standard configuration that was used previously.			ne same standard configuration	
		If the manager under test responds with association request response with "accepted-unknown-config", then				
		The simulated agent sends the confirmed configuration event report with the				

		standard configuration.
		 The simulated agent waits until there is a confirmation to the configuration event report that was sent.
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_REL). The observations should be reasonable	
	12.	The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	•	In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	•	In steps 2, 6 and 12 verify that the manager under test uses beats/min as the unit code for Heart Rate (or reports the proper value after conversion to another unit code).
	•	In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	•	When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes		

TP Id		TP/PLT/MAN/CLASS/ECG/BV-006			
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Not a number – fixed format (Std Config 600)			
Coverage	Spec	[IEEE 11073-10406]			
	Testable items	HeartRate22; M			
Test purpos	e	Check that: Manager receives a NaN value (fixed format event report) but it does not use this value.			
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_029			
Other PICS					
Initial condi	tion	The simulated agent and the manager under test are in the operating state using the standard configuration 600.			
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Heart Rate Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. The simulated agent waits until it receives a confirmation from the manager under test. 			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes		This test case has been considered as an implicit test case.			

TP ld TP/PLT/MAN/CLASS/ECG/BV-007	
TP label	Basic ECG Specialization/Heart Rate profile. Special values. Not a number – variable format (Std Config 600)

Coverage Spec		[IEEE 11073-10406]			
	Testable items	HeartRate44; M			
Test purpose		Check that: Manager receives a NaN value (variable format event report) but it does not use this value.			
Applicability	1	C_MAN_OXP_00	00 AND C_MA	N_OXP_029	
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.			
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Heart Rate Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 			
Notes		This test case ha	s been consid	ered as an implicit test case.	_

TP ld		TD/DLT/MAN/CLASS/FCC/DV 009		
ir iu		TP/PLT/MAN/CLASS/ECG/BV-008		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Not at this resolution – fixed format (Std Config 600)		
Coverage	Spec	[IEEE 11073-10406]		
	Testable items	HeartRate22; M		
Test purpos	е	Check that:		
		Manager receives NRes value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		The simulated agent sends a confirmed fixed event report for handle 1 (Heart Rate Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]) and a time stamp.		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-009		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Not at this resolution – variable format (Std Config 600)		
Coverage Spec		[IEEE 11073-10406]		
	Testable items	HeartRate44; M		
Test purpos	е	Check that:		
		Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condit	tion	The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Heart Rate Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-010		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Positive infinity – fixed format (Std Config 600)		
Coverage	Spec	[IEEE 11073-10406]		
	Testable items	HeartRate22; M		
Test purpos	e	Check that:		
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Heart Rate Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		

Notes	This test case has been considered as an implicit test case.

TP Id TP label		TP/PLT/MAN/CLASS/ECG/BV-011		
		Basic ECG Specialization/Heart Rate profile. Special values. Positive infinity – variable format (Std Config 600)		
Coverage Spec		[IEEE 11073-10406]		
	Testable items	HeartRate44; M		
Test purpos	se	Check that:		
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.		
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Heart Rate Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-012		
11 14		TP/PL1/MAN/CLASS/ECG/BV-012		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Negative infinity – fixed format (Std Config 600)		
Coverage	Spec	[IEEE 11073-10406]		
	Testable items	HeartRate22; M		
Test purpose		Check that:		
		Manager receives a - INFINITY value (fixed format event report) but it does not use this value.		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 1 (Heart Rate Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/ECG/BV-013		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Negative infinity – variable format (Std Config 600)		
Coverage Spec		[IEEE 11073-10406]		
	Testable items	HeartRate44; M		
Test purpos	е	Check that:		
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 600.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Heart Rate Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-014		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Reserved – fixed format (Std Config 600)		
Coverage Spec		[IEEE 11073-10406]		
	Testable items	HeartRate22; M		
Test purpose		Check that:		
		Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager usonfiguration 600.	under test are in the operating state using the standard	

Test procedure	. The simulated agent sends a confirmed fixed event report for handle 1 (Heart Rate Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp.	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/ECG/BV-015		
TP label		Basic ECG Specialization/Heart Rate profile. Special values. Reserved – variable format (Std Config 600)		
Coverage Spec		[IEEE 11073-10406]		
	Testable items	HeartRate44; M		
Test purpos	se	Check that:		
		Manager receives a Reserved for future use value (variable format event report) but it does not use this value.		
Applicability	у	C_MAN_OXP_000 AND C_MAN_OXP_029		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1701.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (Heart Rate Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/ECG/BV-016			
TP label		Association procedure Manager ECG			
Coverage	Spec	[IEEE 11073-10406]			
	Testable	ManProcAsResp1; M	ManProcAsResp2; M	ManProcAsResp3; M	
	items	ManProcAsResp4; M	ManProcAsResp6; M	ManProcAsResp7; M	
		ManProcAsResp8; M	ManProcAsResp9; M	ManProcAsResp10; M	
		ManProcAsResp11; M	ManProcAsResp12; M	ManProcAsResp13; M	
		ManProcAsResp14; C			

Test purpose	Check that:					
. det parpede	In the association response message sent by the Manager:					
	The result field shall be set to an appropriate response from those defined in ISO/IEEE					
	P11073-20601.					
	[AND]					
	In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601					
	[AND]					
	The data-proto-info field shall be filled in with a PhdAssociationInformation structure					
	[AND]					
	The version of the data exchange protocol shall be set to protocol-version2 (i.e., protocol-version = 0x40000000)					
	[AND]					
	The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules					
	[AND]					
	The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)					
	[AND]					
	The field functional-units shall have all bits reset except for those relating to a Test Association.					
	[AND]					
	The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)					
	[AND] The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier					
	[AND]					
	The field dev-config-id shall be manager-config-response (0)					
	[AND]					
	5.1.12 The field data-req-mode-capab shall be 0					
	[AND]					
	The fields data-req-init-*-count shall be 0					
Applicability	C_MAN_OXP_000 AND (C_MAN_OXP_029 OR C_MAN_OXP_030)					
Other PICS						
Initial condition	The manager is in the unassociated state.					
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:					
	□ protocol-version = '010000000000000000000000000000000000					
	□ encoding-rules= '100000000000000'B					
	□ nomenclature-version = '100000000000000000000000000000000000					
	☐ functional-units = '00000000000000000000000000000000000					
	□ system-type = '000000001000000000000000000000000000					
	□ dev-config-id = 16481					
	□ data-rep-mode-capab =					
	 data_req_mode_flags= '00000000000001'B 					

	 data_req_init_agent_count = 1
	- data_req_init_agent_count = r
	data_req_init_manager_count =0
	option-list.length=0
ne ma	nager under test sends an association response. The fields of interest are:
	DU Type
	field-length = 2 bytes
	field-value = 0xE3 0x00 (AareApdu)
Re	sult
	field- type = AssociateResult
	field-length = 2 bytes
	field-value = One of the following:
	If association is accepted, field-value=0x00 0x00.
	If association is rejected-permanent, field-value=0x00 0x01.
	If association is rejected-transient, field-value=0x00 0x02.
	If association is accepted-unknown-config, field-value=0x00 0x03.
	■ If association is rejected-no-common-protocol, field-value=0x00 0x04.
	■ If association is rejected-no-common-parameter, field-value=0x00 0x05.
	■ If association is rejected-unknown = 0x00 0x06.
	If association is rejected-unauthorized, field-value=0x00 0x07.
	 If association is rejected-unsupported-assoc-version, field-value=0x00 0x08.
	ected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data- to-info(defined by data-proto-id))
dat	a-proto-id
	field- type = DataProtoId
	field-length = 2 bytes
	field-value=0x50 0x79 (20601)
pro	tocol-version
	field- type = Protocol Version
	field-length = 4 bytes (BITS-32)
	field-value=0x40 0x00 0x00 0x00
end	coding-rules
	field-type = EncodingRules
	field-length = 2 bytes (BITS-16)
	field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
nor	menclature version
	field- type = NomenclatureVersion
	field-length = 4 bytes (BITS-32)
	field-value= Bit 0 must be set (nom-version1)
fun	ctional units
	field-type = FunctionalUnits
	field-length = 4 bytes (BITS-32)
	field-value =
	■ Bit 0 must be 0
	selo dat one

		 Bits 1 and 2 may be set
		 The rest of the bits must not be set
	i.	system type
		☐ field- type = SystemType
		☐ field-length = 4 bytes (BITS-32)
		☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j.	system-id
		☐ field- type = OCTET STRING
		☐ field-length = 8 bytes
		☐ field-value = (EUI-64 manufacturer and device)
	k.	dev-config-id
		☐ field- type = Configld
		☐ field-length = 2 bytes
		☐ field-value = 0x00 0x00 (manager-config-response)
	I.	data-req-mode-flags (DataReqModeCapab)
		☐ field- type = DataReqModeFlags
		☐ field-length = 2 bytes
		$\Box \text{field-value} = 0x00 \ 0x00$
		☐ manager response to data-req-mode-flags is always 0.
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
	n.	data-req-init-manager-count (DataReqModeCapab)
		☐ field- type = INT-U8
		☐ field-length = = 1 byte
		☐ field-value = 0x00
Pass/Fail criteria	All chec	ked values are as specified in the test procedure.
Notes	Value fo	or protocol-version has been modified according to [ISO/IEEE 11073-20601A].

A.14 Subgroup 2.3.14: International normalized ratio (INR)

TP ld		TP/PLT/MAN/CLASS/INR/BV-000				
TP label		Association procedure Manager INR				
Coverage	Spec	[IEEE 11073-10418]				
	Testable items	ManProcAs 1;M	ManProcAs 2;M	ManProcAs 3;M		
	items	ManProcAs 4;M	ManProcAs 5;M	ManProcAs 6;M		
		ManProcAs 7;M	ManProcAs 8;M	ManProcAs 9;M		
		ManProcAs 10;M	ManProcAs 11;M	ManProcAs 12;M		

Test purpose	Check that:					
	The result field shall be set to an appropriate response from those defined in ISO/IEEE P11073-20601.					
	[AND]					
	In the DataProtoList structure element, the data protocol identifier shall be set to data-protoid-20601.					
	[AND]					
	The data-proto-info field shall be filled in with a PhdAssociationInformation structure					
	[AND]					
	The version of the data exchange protocol shall be set to protocol-version 2					
	[AND]					
	The Manager shall respond with a single selected encoding rule that is supported by both Agent and Manager. The Manager shall support at least the MDER encoding rules					
	[AND]					
	The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-version = 0x80000000)					
	[AND]					
	The field functional-units shall have all bits reset except for those relating to a Test Association.					
	[AND]					
	The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)					
	[AND]					
	The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier					
	[AND] The field dev-config-id shall be manager-config-response (0) [AND] 5.1.13 The field data-req-mode-capab shall be 0					
	[AND]					
	5.1.14 If the agent supports only the INR specialization, data-req-init-agent-count shall be set to 0 and data-req-init-manager-count shall be set to 0.					
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067					
Other PICS						
Initial condition	The manager is in the unassociated state.					
Test procedure	The simulated agent sends an association request to the manager under test, with the fields:					
	□ protocol-version = '010000000000000000000000000000000000					
	□ encoding-rules= '100000000000000'B					
	□ nomenclature-version = '100000000000000000000000000000000000					
	☐ functional-units = '00000000000000000000000000000000000					
	□ system-type = '000000001000000000000000000000000000					
	dev-config-id = 16440					
	☐ data-rep-mode-capab =					
	data_req_mode_flags= '00000000000001'B					
	data_req_init_agent_count = 1					

		•	data_req_init_manager_count =0
		opt	ion-list.length=0
2.	The	e ma	nager under test sends an association response. The fields of interest are:
	a.	AP	DU Type
			field-length = 2 bytes
			field-value = 0xE3 0x00 (AareApdu)
	b.	Res	sult
			field- type = AssociateResult
			field-length = 2 bytes
			field-value = One of the following:
			 If association is accepted, field-value=0x00 0x00.
			 If association is rejected-permanent, field-value=0x00 0x01.
			 If association is rejected-transient, field-value=0x00 0x02.
			 If association is accepted-unknown-config, field-value=0x00 0x03.
			 If association is rejected-no-common-protocol, field-value=0x00 0x04.
			 If association is rejected-no-common-parameter, field-value=0x00 0x05.
			If association is rejected—unknown = 0x00 0x06.
			 If association is rejected-unauthorized, field-value=0x00 0x07.
			 If association is rejected–unsupported-assoc-version, field-value=0x00 0x08.
	C.		ected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-to-info(defined by data-proto-id))
	d.	dat	a-proto-id
			field- type = DataProtoId
			field-length = 2 bytes
			field-value=0x50 0x79 (20601)
	e.	pro	tocol-version
			field- type = Protocol Version
			field-length = 4 bytes (BITS-32)
			field-value=0x80 0x00 0x00 0x00
	f.	enc	coding-rules
			field-type = EncodingRules
			field-length = 2 bytes (BITS-16)
			field-value= depends on the encoding rules supported/selected, but only one can be supported at a time
	g.	nor	nenclature version
			field- type = NomenclatureVersion
			field-length = 4 bytes (BITS-32)
			field-value= Bit 0 must be set (nom-version1)
	h.	fun	ctional units
			field-type = FunctionalUnits
			field-length = 4 bytes (BITS-32)
			field-value =
			Bit 0 must be 0
			Bits 1 and 2 may be set

Notes	Value fo	or protocol-version has been modified according to [ISO/IEEE 11073-20601A].
Pass/Fail criteria	All chec	ked values are as specified in the test procedure.
		ifield-value = 0x00
		☐ field-length = = 1 byte
		☐ field- type = INT-U8
	n.	data-req-init-manager-count (DataReqModeCapab)
		$\Box \text{field-value} = 0x00$
		☐ field-length = = 1 byte
		☐ field- type = INT-U8
	m.	data-req-init-agent-count (DataReqModeCapab)
		☐ manager response to data-req-mode-flags is always 0.
		$\Box \text{field-value} = 0x00 \ 0x00$
		☐ field-length = 2 bytes
		☐ field- type = DataReqModeFlags
	l.	data-req-mode-flags (DataReqModeCapab)
		☐ field-value = 0x00 0x00 (manager-config-response)
		initial type = connigra field-length = 2 bytes
	13.	☐ field- type = Configld
	k.	dev-config-id
		☐ field-value = (EUI-64 manufacturer and device)
		☐ field- type = OCTET STRING ☐ field-length = 8 bytes
	j.	system-id Defined type = OCTET STRING
		field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
		ifield-length = 4 bytes (BITS-32)
		☐ field- type = SystemType
	i.	system type
		 The rest of the bits must not be set

TP Id		TP/PLT/MAN/CLASS/INR/BV-001				
TP label		Configuration Event Report. INR monitor standard configuration 1800				
Coverage	Spec	[IEEE 11073-10418]				
	Testable items	ConfProc 4;M	MDSEvents 2;M	ObjAccServ 5;M		
	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M				

Test purpose	Check that:							
	The Manager shall respond to a configuration notification message using a "Remote Operation Response Confirmed Event Report" data message with an MDC_NOTI_CONFIG event using the ConfigReportRsp structure for the event-info field .							
	[AND]							
	A Manager shall support both single-person and multi-person event reports.							
	[AND]							
	A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.							
	[AND]							
	Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.							
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067							
Other PICS								
Initial condition	The simulated agent and the manager under test are in an unassociated state. The simulated agent implements an INR monitor device specialization with standard configuration 1800.							
Test procedure	The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x07 0x08 (INR monitor – Std Config 1800)							
	2. The manager under test responds with an association response, the field of interest is:							
	a. Result							
	☐ field- type = INT-U16							
	☐ field-length =2 bytes							
	☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)							
	If the result of the association response was "accepted-unknown-config"							
	3. The simulated agent sends a configuration event report with config-report-id set to 0x07 0x08.							
	4. The manager under test must respond with:							
	a. APDU Type							
	☐ field-length =2 bytes							
	☐ field-value =0xE7 0x00 (PrstAdpu)							
	b. Invoke-id							
	☐ field- type = INT-U16							
	☐ field-length =2 bytes							
	field-value= it must be the same as the invoke-id of the simulated agent's message.							
	c. Obj-Handle:							
	☐ field- type = HANDLE							
	☐ field-length =2 bytes							
	$\Box \text{field-value} = 0x00 \ 0x00$							
	d. Event-time:							
	☐ field- type = INT-U32							
	☐ field-length =4 bytes							
	☐ field-value: 0xXX 0xXX							

	_	Front force
	e.	Event-type:
		☐ field-length = 2 bytes
		☐ field-value= MDC_NOTI_CONFIG
	f.	The following six bytes indicate:
		☐ Event-replay-info.length (2 bytes)
		☐ ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
		☐ ConfigReportRsp.config-result: One of:
		 accepted-config: 0x00 0x00
	Wait un	til the operating state is reached in both cases.
	5. The	e simulated agent sends a fixed event report with one INR measurement.
Pass/Fail criteria	"ac	e manager under test must respond either to the association request with an cepted" message or to the Configuration Event Report with an "accepted-config".
Notes		

TP ld		TP/PLT/MAN/CLASS/INR/BV-002				
TP label		Configuration Event Report. Glucose Meter standard configuration 1801				
Coverage	Spec	[IEEE 11073-10418]	[IEEE 11073-10418]			
	Testable items	ConfProc 4;M	MDSEvents 2;M	ObjAccServ 5;M		
	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	ConfEventRep 18;M				
Test purpos	se	Check that:				
		The Manager shall respond to a configuration notification message using a "Remote Operation Response Confirmed Event Report" data message with an MDC_NOTI_CONFIG event using the ConfigReportRsp structure for the event-info field.				
		[AND]				
		A Manager shall support both single-person and multi-person event reports.				
		[AND]				
		A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.				
		[AND]				
			and check attributes from the	the standard configuration in order e MDS object prior to final		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067				
Other PICS						
Initial condition		The simulated agent and the manager under test are in an unassociated state. The simulated agent implements an INR monitor device specialization with standard configuration 1801.				

Test procedure	1.			ulated agent test sends an association request to the manager under test with
				fig-id set to 0x07 0x09 (INR monitor – Std Config 1801).
	2.	The		nager under test responds with an association response, the field of interest is:
		a.	Res	
				field- type = INT-U16
				field-length =2 bytes
				field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config)
	If th			of the association response was "accepted-unknown-config"
	3.	The 0xA		sulated agent sends a configuration event report with config-report-id set to 0x06
	4.	The	ma	nager under test must respond with:
		a.	API	DU Type
				field-length =2 bytes
				field-value =0xE7 0x00 (PrstAdpu)
		b.	Inv	oke-id
				field- type = INT-U16
				field-length =2 bytes
				field-value = it must be the same as the invoke-id of the simulated agent's message.
		c.	Obj	-Handle:
				field- type = HANDLE
				field-length =2 bytes
				field-value = 0x00 0x00
		d.	Eve	ent-time:
				field- type = INT-U32
				field-length =4 bytes
				field-value: 0xXX 0xXX
		e.	Eve	ent-type:
				field-length = 2 bytes
				field-value= MDC_NOTI_CONFIG
		f.	The	e following six bytes indicate:
				Event-replay-info.length (2 bytes)
				ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message
				ConfigReportRsp.config-result: One of:
				accepted-config: 0x00 0x00
	Wa	it unt	til the	e operating state is reached in both cases.
	5.			culated agent sends a fixed event report with one INR measurement and other ent report with Control Solution measurement.
Pass/Fail criteria	•			nager under test must respond either to the association request with an ed" message or to the Configuration Event Report with an "accepted-config".
	•	The	me	asurement is correctly presented.
Notes				

TP ld		TP/PLT/MAN/CLASS/INR/BV-003					
TP label		Maximum APDU size: INR monitor without PM-Store					
Coverage	Spec	[ISO/IEEE 11073-20601A]					
Testable items		CommonCharac 4;M					
	Spec	[IEEE 11073-10418]					
	Testable items	ComChar 2; M					
Test purpos	е	Check that:					
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.	/				
		specializations the manager supports. The buffer size limitations in this bullet and the nex	The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicability	/	C_MAN_OXP_000 AND C_MAN_OXP_067					
Other PICS							
Initial condit	tion	The manager under test is in the operating state.					
Test proced	ure	The simulated agent sends a Confirmed variable event report:					
		a. ScanReportInfoVar. obs_scan_var:					
		☐ Count =2					
		☐ Length = 856					
		ObservationScan ::= {					
		obj-handle: 1					
		attributes: AttributeList ::= {					
		AVA-Type ::= {					
		attribute-id: 61441	attribute-id: 61441				
		attribute-value: '00(832 bytes) 00'0					
		}					
		}					
		}					
		ObservationScan ::= {					
		obj-handle: 1					
		attributes: AttributeList ::= {					
		AVA-Type ::= {					
		attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)					
		attribute-value: 1					
		}					
		}					
		}					
		2. Check the response of the manager under test.					

	3. The simulated agent sends a confirmed fixed format event report with one meas4. Check the response of the manager under test.	
Pass/Fail criteria		In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report".
	•	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".
Notes		

TP ld		TP/PLT/MAN/CLASS/INR/BV-004				
TP label		Maximum APDU size: INR monitor with PM-Store				
Coverage	Spec	[ISO/IEEE 11073-20601A]				
	Testable items	CommonCharac 4;M				
	Spec	[IEEE 11073-10418]				
	Testable items	ComChar 2; M				
Test purpos	se	Check that:				
		If a manager receives APDU that is larger than the manager's receive buffer, it shall reply with an error (roer) code of protocol-violation.				
		The manager's receive buffer shall be at least as large as the largest buffer specified in the specializations the manager supports. The buffer size limitations in this bullet and the next on apply to all APDUs regardless of whether a standard or extended configuration is being used.				
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_067 AND C_MAN_OXP_003				
Other PICS						
Initial condi	tion	The manager under test is in the operating state.				
Test proced	lure	The simulated agent sends a Confirmed variable event report:				
		a. ScanReportInfoVar. obs_scan_var:				
		☐ Count = 2				
		☐ Length = 64472				
		ObservationScan ::= {				
		obj-handle: 1				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				
		attribute-id: 61441				
		attribute-value: '00(64448 bytes) 00'0				
		}				
		}				
		}				
		ObservationScan ::= {				
		obj-handle: 1				
		attributes: AttributeList ::= {				
		AVA-Type ::= {				

		attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)	
	attribute-value: 1		
	}		
		}	
		}	
	2.	Check the response of the manager under test.	
	3.	The simulated agent sends a confirmed fixed format event report with one measurement.	
	4.	Check the response of the manager under test.	
Pass/Fail criteria	In step 2 the manager under test must respond with a "rors-cmip-confirmed-event-report		
	•	In step 4 the manager under test must respond with a "rors-cmip-confirmed-event-report".	
Notes			

TP ld		TP/PLT/MAN/CLASS/INR/BV-005			
TP label		INR Attribute-Value-Map. Order change			
Coverage	Spec	[IEEE 11073-10418]			
	Testable items	INR 10; M			
Test purpos	se	Check that:			
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present			
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_BO			
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_067			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test proced	lure	The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO.			
		2. The simulated agent waits until it receives a confirmation.			
		 The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 (INR Object) to reverse the values to: MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_NU_VAL_OBS_BASIC. 			
		4. The simulated agent waits until it receives a confirmation.			
		5. Send a confirmed fixed format event report with the date first followed by an INR value.			
		6. The simulated agent waits until it receives a confirmation.			
		7. The simulated agent sends an association release request (normal).			
		8. The simulated agent waits until there is an association release response.			
		9. The simulated agent sends an association request using the same standard configuration that was used previously.			
		10. If the manager under test responds with association request response with "accepted-unknown-config", then			
		The simulated agent sends the confirmed configuration event report with the standard configuration.			

	 The simulated agent waits until there is a confirmation to the configuration event report that was sent. 11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO). The observation should be a reasonable INR observation. 12. The simulated agent waits until it receives a confirmation.
Pass/Fail criteria	 In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	• In steps 2, 6 and 12 verify that the manager under test uses INR unit as the unit code for the measurement report (or reports the proper value after conversion to another unit code).
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification.
Notes	

TP ld		TP/PLT/MAN/CLASS/INR/BV-006			
TP label		INR Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map			
Coverage	Spec	[IEEE 11073-10418]			
	Testable items	INR	10;M		
Test purpose	e	Che	ck that:		
		For [Standard-Configuration] th	e [Attribute-Value-Map] attribute	e shall be present
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_BO			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration. (INR Numeric standard configuration Unit code attribute is set to MDC_DIM_INR)			
Test procedure		The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (INR Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_BO.			
		2. The simulated agent waits until it receives a confirmation.			
		3. Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use MDC_DIM_INR (6608).			
		4. The simulated agent waits until it receives a confirmation.			
		5. The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC attribute.			
		6. The simulated agent waits until it receives a confirmation.			

Pass/Fail criteria	 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly).
	 In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly).
	• In steps 4 and 6, verify that the manager under test uses INR unit as the unit code for the measurement reports.
Notes	

TP ld TP label		TP/PLT/MAN/CLASS/INR/BV-007			
		INR Unit-Code. Use default INR units – variable format observation			
Coverage	Spec	[IEEE 11073-10418]			
	Testable items	INR 8;M			
Test purpos	se	Check that:			
		For [Standard-Configuration] the [Unit-Code] attribute shall be present			
		The value of the [Unit-Code] attribute shall be MDC_DIM_INR			
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_067			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test proced	dure	Send a confirmed variable format event report using a measurement in INR unit.			
		2. The simulated agent waits until it receives a confirmation.			
Pass/Fail criteria		 Verify that the manager under test is able to accept the data properly and applies INR unit to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 			
Notes					

TP ld		TP/PLT/MAN/CLASS/INR/BV-008			
TP label		Special values. Not a number – fixed format (Std Config 1800)			
Coverage Spec [IEEE 11073-10418]					
	Testable items	INR 10; M			
Test purpos	e	Check that:			
		Manager receives a NaN value (fixed format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067			
Other PICS					
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.			

Test procedure	The simulated agent sends a confirmed fixed event report for handle 1 (INR Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 – 1) = 0x07FF]) and a time stamp.
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).
Notes	This test case has been considered as an implicit test case.

TP Id TP label		TP/PLT/MAN/CLASS/INR/BV-009		
		Special values. Not a number – variable format (Std Config 1800)		
Coverage Spec		[IEEE 11073-10418]		
	Testable items	INR 20; R		
Test purpos	se	Check that:		
		Manager receives a Na	aN value (variable forma	t event report) but it does not use this value.
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (INR Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-010	
TP label		Special values. Not at this resolution – fixed format (Std Config 1800)	
Coverage	Spec	[IEEE 11073-10418]	
	Testable items	INR 10; M	
Test purpose		Check that: Manager receives NRes value (fixed format event report) but it does not use this value.	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067	
Other PICS			

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1800.	
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (INR Object) containing an observation value set to the value for NRes ([exponent 0, mantissa – (2**11) = 0x0800]) and a time stamp. 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the value as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/INR/BV-011		
TP label		Special values. Not at this resolution – variable format (Std Config 1800)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	INR 20; R		
Test purpose		Check that: Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (INR Object) containing an observation value set to the value for NRes ([exponent 0, mantissa – (2**11) = 0x0800]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-012		
TP label		Special values. Positive infinity – fixed format (Std Config 1800)		
Coverage Spec [IEEE 11073-10418]				
	Testable items	INR 10; M		
Test purpose		Check that: Manager receives a + II value.	NFINITY value (fixed format event report) but it does not use this	
Applicability		C_MAN_OXP_000 AND	O C_MAN_OXP_067	
Other PICS				

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1800.	
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (INR Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponer 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/INR/BV-013		
TP label		Special values. Positive infinity – variable format (Std Config 1800)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	INR 20; R		
Test purpos	se	Check that:		
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.		
Applicability	у	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.		
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1 (INR Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-0	014	
TP label		Special values. Negative infinity – fixed format (Std Config 1800)		
Coverage Spec		[IEEE 11073-10418]		
	Testable items	INR 10; M		
Test purpose		Check that: Manager receives a - INFINITY	value (fixed format event report	t) but it does not use this value.
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_067	
Other PICS				

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1800.	
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (INR Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP ld		TP/PLT/MAN/CLASS/INR/BV-015		
TP label		Special values. Negative infinity – variable format (Std Config 1800)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	INR 20; R		
Test purpose	e	Check that:		
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.		
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 1 (INR Object) containing an observation value set to the value for negative infinity (–INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		• Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-0	016	
TP label		Special values. Reserved – fixed format (Std Config 1800)		
Coverage	verage Spec [IEEE 11073-10418]			
	Testable items	INR 10; M		
Test purpose		Check that: Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_067	

Other PICS	
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1800.
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 1 (INR Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp.
	2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld		TP/PLT/MAN/CLASS/INR/BV-017		
TP label		Special values. Reserved – variable format (Std Config 1800)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	INR 20; R		
Test purpos	е	Check that:		
		Manager receives a Reserved for future use value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1800.		
Test procedure		1. The simulated agent sends a confirmed variable event report for handle 1 (INR Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]).		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-018
TP label		Control Calibration Attribute-Value-Map. Order change
Coverage	Spec	[IEEE 11073-10418]
	Testable items	CtrlCal 7;M

Test purpose	Check that:			
	For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present			
	The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_BO			
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067			
Other PICS				
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.			
Test procedure	 The simulated agent sends a Control Solution confirmed fixed format event report that matches the Attribute-Value-Map order of MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO. 			
	2. The simulated agent waits until it receives a confirmation.			
	3. The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 2 (Control Calibration Object) to reverse the values to: MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_NU_VAL_OBS_BASIC.			
	4. The simulated agent waits until it receives a confirmation.			
	 Send a confirmed fixed format event report with the date first followed by a control calibration value (in INR units since it is the standard configuration unit code). 			
	6. The simulated agent waits until it receives a confirmation.			
	7. The simulated agent sends an association release request (normal).			
	8. The simulated agent waits until there is an association release response.			
	The simulated agent sends an association request using the same standard configuration that was used previously.			
	 If the manager under test responds with association request response with "accepted- unknown-config", then 			
	 The simulated agent sends the confirmed configuration event report with the standard configuration. 			
	 The simulated agent waits until there is a confirmation to the configuration event report that was sent. 			
	11. The simulated agent sends a fixed event report following the standard configuration attribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO). The observation should be a reasonable INR units INR observation.			
	12. The simulated agent waits until it receives a confirmation.			
Pass/Fail criteria	 In steps 2, 6 and 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). 			
	 In steps 2, 6 and 12 verify that the manager under test uses INR units as the unit code for the measurement report (or reports the proper value after conversion to another unit code). 			
	 In steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past). 			
	 When automated, it is necessary to be careful about sending these messages back to back since the ability to look at things like an UI may require that there be pauses for operator verification. 			
Notes				

TP Id		TP/PLT/MAN/CLASS/INR/BV-019		
TP label		Control Calibration Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 7;M		
Test purpose	•	Check that:		
		For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present		
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_BO		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial conditi	ion	The simulated agent and the manager under test are in the operating state using the standard configuration (Control Calibration Numeric standard configuration Unit code attribute is set to MDC_DIM_INR).		
Test procedu	ıre	The simulated agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 2 (Control Calibration Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_BO.		
		2. The simulated agent waits until it receives a confirmation.		
		3. Send a confirmed fixed format event report with the new data layout. For the unit-code attribute, use MDC_DIM_INR (6608).		
		The simulated agent waits until it receives a confirmation.		
		 The simulated agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC attribute. 		
		6. The simulated agent waits until it receives a confirmation.		
Pass/Fail criteria		 In step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement and date are displayed properly). 		
		 In step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify that the measurement is displayed properly). 		
		 In steps 4 and 6, verify that the manager under test uses INR units as the unit code for the measurement reports. 		
Notes				

TP Id		TP/PLT/MAN/CLASS/INR/BV-0	020	
TP label		Control Calibration Unit-Code. Use default INR units – variable format observation		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 6;M		
Test purpose		Check that:		
		For [Standard-Configuration] the [Unit-Code] attribute shall be present		
		The value of the [Unit-Code] attribute shall be MDC_DIM_INR		

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure	 Send a confirmed variable format event report using a measurement in INR units. The simulated agent waits until it receives a confirmation. 		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data properly and applies INR units to the observation (e.g. if there is a UI, verify that the measurement and date are displayed properly even if they are converted to a different set of units). 		
Notes			

TP Id		TP/PLT/MAN/CLASS/INR/BV-021		
TP label		Special values. Not a number – fixed format (Std Config 1801)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 7; M		
Test purpose	e	Check that:		
		Manager receives a NaN value (fixed format event report) but it does not use this value.		
Applicability	•	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 2 (Control Calibration Object) containing an observation value with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 		
Notes		This test case has been considered as an implicit test case.		

TP Id TP/PLT/MAN/CLASS/INR/BV-022		/INR/BV-022	
TP label Special values. Not at this resolution – fixed format (Std Config 1801)		t this resolution – fixed format (Std Config 1801)	
Coverage	Spec	[IEEE 11073-10418]	
	Testable items	CtrlCal 7; M	
Test purpose		Check that:	
		Manager receives NR	les value (fixed format event report) but it does not use this value.

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 2 (Control Calibration Object) containing an observation value set to the value for NRes ([exponent 0, mantissa –(2**11) = 0x0800]) and a time stamp. 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes	This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/INR/BV-023		
TP label		Special values. Positive infinity – fixed format (Std Config 1801)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 7; M		
Test purpos	se .	Check that:		
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.		
Applicability	y	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure		 The simulated agent sends a confirmed fixed event report for handle 2 (Control Calibration Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]) and a time stamp. 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-024		
TP label		Special values. Negative infinity – fixed format (Std Config 1801)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 7; M		
Test purpose		Check that:		
		Manager receives a - INFINITY value (fixed format event report) but it does not use	this value.	

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure	 The simulated agent sends a confirmed fixed event report for handle 2 (Control Calibration Object) containing an observation value set to the value for negative infinity (– INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]) and a time stamp. 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes	This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/INR/BV-025		
TP label		Special values. Reserved – fixed format (Std Config 1801)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 7; M		
Test purpose		Check that: Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure		The simulated agent sends a confirmed fixed event report for handle 2 (Control Calibration Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]) and a time stamp.		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement).		
Notes		This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-026	
TP label		Special values. Not a number – variable format (Std Config 1801)	
Coverage Spec		[IEEE 11073-10418]	
	Testable items	CtrlCal 13; R	

Test purpose	Check that:		
	Manager receives a NaN value (variable format event report) but it does not use this value.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS			
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure	 The simulated agent sends a confirmed variable event report for handle 2 (Control Calibration Object) containing an observation value set to the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]). 		
	2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area). 		
Notes	This test case has been considered as an implicit test case.		

TP ld		TP/PLT/MAN/CLASS/INR/BV-027		
TP label		Special values. Not at this resolution – variable format (Std Config 1801)		
Coverage Spec		[IEEE 11073-10418]		
	Testable items	CtrlCal 13; R		
Test purpos	se	Check that: Manager receives NRes value (variable format event report) but it does not use this value.		
Applicability C_MAN_OXP_000 AND C_MAN_OXP_067		C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS	er PICS			
Initial condition The simulated agent and the manager under test are in the operating state configuration 1801.		The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
		Calibration Object) containing an observation value set to the value for NRes ([exponent		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
		as if they were an actual measurement (e.g. if there is a UI, verify that the measurement		
Notes	This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/INR/BV-028		
TP label		Special values. Positive infinity – variable format (Std Config 1801)		
Coverage Spec [IEEE 11073-10418]				
	Testable items	CtrlCal 13; R		

Test purpose	Check that:	
	Manager receives a + INFINITY value (variable format event report) but it does not use this value.	
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_067	
Other PICS		
Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration 1801.	
Test procedure	 The simulated agent sends a confirmed variable event report for handle 2 (Control Calibration Object) containing an observation value set to the value for positive infinity (+INFINITY, [exponent 0, mantissa +(2**11 -2) = 0x07FE]). 	
	2. The simulated agent waits until it receives a confirmation from the manager under test.	
Pass/Fail criteria	 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 	
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/INR/BV-029		
TP label		Special values. Negative infinity – variable format (Std Config 1801)		
Coverage	Spec	[IEEE 11073-10418]		
	Testable items	CtrlCal 13; R		
Test purpos	е	Check that:		
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.		
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_067		
Other PICS				
Initial condit	tion	The simulated agent and the manager under test are in the operating state using the standard configuration 1801.		
Test procedure		 The simulated agent sends a confirmed variable event report for handle 2 (Control Calibration Object) containing an observation value set to the value for negative infinity (-INFINITY, [exponent 0, mantissa –(2**11 –2) = 0x0802]). 		
		2. The simulated agent waits until it receives a confirmation from the manager under test.		
Pass/Fail criteria		 Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI, verify that the measurement is displayed in some form that indicates it is not a measurement). 		
Notes This test case has been considered as an implicit test case.		This test case has been considered as an implicit test case.		

TP Id	TP/PLT/MAN/CLASS/INR/BV-030
TP label	Special values. Reserved – variable format (Std Config 1801)

Coverage	Spec	[IEEE 11073-10418]			
	Testable items	CtrlCal 13; R			
Test purpose		Check that: Manager receives a Reserved for future use value (variable format event report) but it does not use this value.			
Applicability	у	C_MAN_OXP_000 AND C_MA	AN_OXP_067		
Other PICS					
Initial condition The simulated agent and the manager under test are in the operating state using configuration 1801.		erating state using the standard			
Test procedure		 The simulated agent sends a confirmed variable event report for handle 2 (Control Calibration Object) containing an observation value set to the value for reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). 			
		2. The simulated agent waits until it receives a confirmation from the manager under test.			
Verify that the manager under test either reports a does not use the values as if they were an actual verify that the measurement is displayed in some measurement).		s if they were an actual measure	ment (e.g. if there is a UI,		
Notes	Notes This test case has been considered as an implicit test case.				

A.15 Subgroup 2.3.15: Sleep Apnoea Breathing Therapy Equipment (SABTE)

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-000			
TP label		Association procedure Manager SABTE			
Coverage	Spec	Spec [ISO/IEEE 11073-10424]			
	Testable	ManProcAs 1;M	ManProcAs 2;M	ManProcAs 3;M	
	items	ManProcAs 4;M	ManProcAs 5;M	ManProcAs 6;M	
		ManProcAs 7;M	ManProcAs 8;M	ManProcAs 9;M	
		ManProcAs 10;M	ManProcAs 11;M	ManProcAs 12;M	
Test purpos	e	Check that:			
		The result field shall be set to an appropriate response from those defined in ISO/IEEE P11073-20601.			
		[AND]			
		In the DataProtoList structure element, the data protocol identifier shall be set to data-proto-id-20601.			
		[AND]			
		The data-proto-info field	shall be filled in with a PhdAsso	ciationInformation structure	
[AND]					
The version of the data exchange protocol shall be set to protocol-version 2			protocol-version 2		
	[AND]				
	The Manager shall respond with a single selected encoding rule that is supported by bot Agent and Manager. The Manager shall support at least the MDER encoding rules				

	[AND]			
	The version of the nomenclature used shall be set to nom-version1 (i.e., nomenclature-			
	version = 0x80000000)			
	[AND]			
	The field functional-units shall have all bits reset except for those relating to a Test Association.			
	[AND]			
	The field system-type shall be set to sys-type-manager (i.e., system-type = 0x80000000)			
	[AND]			
	The System-Id field shall contain the unique system id of the Manager device, which shall be a valid EUI-64 type identifier			
	[AND]			
	The field dev-config-id shall be manager-config-response (0)			
	[AND]			
	5.1.15 The field data-req-mode-capab shall be 0			
	[AND]			
	5116 If the agent supports only the SABTE specialization, data-req-init-agent-count shall be set to 0 and data-req-init-manager-count shall be set to 0.			
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS				
Initial condition	Manager is in Unassociated State			
Test procedure	 Simulated agent sends an Association Request to the Manager under test, with the fields: 			
	□ protocol-version = '010000000000000000000000000000000000			
	☐ encoding-rules= '10000000000000'B			
	□ nomenclature-version = '100000000000000000000000000000000000			
	☐ functional-units = '00000000000000000000000000000000000			
	□ system-type = '000000001000000000000000000000000000			
	dev-config-id = 16440			
	☐ data-rep-mode-capab =			
	o data_req_mode_flags= '00000000000001'B			
	o data_req_init_agent_count = 1			
	o data_req_init_manager_count =0			
	□ option-list.length=0			
	Manager under test sends an Association Response. The fields of interest are:			
	a. APDU Type			
	☐ field-length = 2 bytes			
	☐ field-value = 0xE3 0x00 (AareApdu)			
	b. Result			
	☐ field- type = AssociateResult			

	field-value = One of the following:
	 If association is accepted, field-value=0x00 0x00.
	 If association is rejected-permanent, field-value=0x00 0x01.
	 If association is rejected-transient, field-value=0x00 0x02.
	 If association is accepted-unknown-config, field-value=0x00 0x03.
	If association is rejected-no-common-protocol, field- value=0x00 0x04.
	 If association is rejected -no-common-parameter, field- value=0x00 0x05.
	If association is rejected –unknown = 0x00 0x06.
	 If association is rejected -unauthorized, field- value=0x00 0x07.
	 If association is rejected –unsupported-assoc-version, field-value=0x00 0x08.
	selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id))
d.	data-proto-id
	☐ field- type = DataProtold
	☐ field-length = 2 bytes
	☐ field-value=0x50 0x79 (20601)
e.	protocol-version
	☐ field- type = Protocol Version
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value=0x80 0x00 0x00 0x00
f.	encoding-rules
	☐ field-type = EncodingRules
	☐ field-length = 2 bytes (BITS-16)
	☐ field-value= depends on the encoding rules supported/selected, but only
	one can be supported at a time
g.	nomenclature version
	☐ field- type = NomenclatureVersion
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value= Bit 0 must be set (nom-version1)
h.	functional units
	☐ field-type = FunctionalUnits
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value =
	■ Bit 0 must be 0
	■ Bits 1 and 2 may be set
	 The rest of the bits must not be set

	i. system type
	☐ field- type = SystemType
	☐ field-length = 4 bytes (BITS-32)
	☐ field-value = 0x80 0x00 0x00 0x00 (sys-type-manager)
	j. system-id
	☐ field- type = OCTET STRING
	☐ field-length = 8 bytes
	☐ field- value = (EUI-64 manufacturer and device)
	k. dev-config-id
	☐ field- type = Configld
	☐ field-length = 2 bytes
	☐ field- value = 0x00 0x00 (manager-config-response)
	I. data-req-mode-flags (DataReqModeCapab)
	☐ field- type = DataReqModeFlags
	☐ field-length = 2 bytes
	☐ field- value = 0x00 0x00
	☐ Manager response to data-req-mode-flags is always 0.
	m. data-req-init-agent-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 bytes
	☐ field- value = 0x00
	n. data-req-init-manager-count (DataReqModeCapab)
	☐ field- type = INT-U8
	☐ field-length = = 1 bytes
	☐ field- value = 0x00
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	[AT4wireless] Value for protocol-version has been modified according to 20601A.

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-001		
TP label		Configuration Event Report. SABTE standard configuration 2400		
Coverage Spec		[ISO/IEEE 11073-10424]		
Testable items		ConfProc 4;M	MDSEvents 2;M	ObjAccServ 5;M
Spec Testable items		[ISO/IEEE 11073-20601A]		
		ConfEventRep 18;M		

Test purpose	Check that:		
	The Manager shall respond to a configuration notification message using a "Remote Operation Response Confirmed Event Report" data message with an MDC_NOTI_CONFIG event using the ConfigReportRsp structure for the event-info field.		
	[AND]		
	A Manager shall support both single-person and multi-person event reports.		
	[AND]		
	A Manager that supports one (or more) of the ISO/IEEE 11073-104zz device specialization standards shall be able to accept all the standard device configurations specified for the profiles listed in conformance Table 23 under Gen-4.		
	[AND]		
	Alternatively, the manager may request the agent to send the standard configuration in order to enter the configuring state and check attributes from the MDS object prior to final acceptance (or rejection) of the agent.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_069		
Other PICS			
Initial condition	Simulated Agent and Manager under test are in Unassociated state. Simulated Agent implements a SABTE device specialization with Standard Configuration 2400		
Test procedure	 Simulated Agent test sends an Association Request to the Manager under test with dev-config-id set to 0x09 0x60 (SABTE – Std Config 2400) 		
	2. Manager under test responds an Association Response, the field of interest is:		
	a. Result		
	☐ field- type = INT-U16		
	☐ field-length =2 bytes		
	☐ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unkown-config)		
	IF the result of the Association Response was "accepted-unkown-config"		
	 Simulated Agent sends a configuration event report with config-report-id set to 0x07 0x08 		
	4. Manager under test must respond with:		
	a ADDU Time		
	a. APDU Type		
	☐ field-relye 2 bytes		
	☐ field-value =0xE7 0x00 (PrstApdu)		
	b. Invoke-id		
	☐ field- type = INT-U16		
	☐ field-length =2 bytes		
	field- value= it must be the same that the invoke-id of the simulated Agent's message.		
	c. Obj-Handle:		
	ield- type = HANDLE		
	☐ field-length =2 bytes		
	☐ field-value = 0x00 0x00		

	d. Event-time:
	☐ field- type = INT-U32
	☐ field-length =4 bytes
	☐ field-value: 0xXX 0xXX
	G. Frient time.
	e. Event-type:
	ifield-length = 2 bytes
	☐ field-value= MDC_NOTI_CONFIG
	f. The following six bytes indicates:
	☐ Event-replay-info.length (2 bytes)
	 ConfigReportRsp.config-report-id: it must be the same that config-report-id of the simulated Agent's message
	☐ ConfigReportRsp.config-result: One of:
	accepted-config: 0x00 0x00
	Wait until operating state is reached in both cases
	5. Simulated Agent sends a fixed event report with one SABTE measurement
Pass/Fail criteria	The Manager under test must respond either to the Association Request with an "accepted" message or to the Configuration Event Report with an "accepted-config"
	The measurement is correctly presented
Notes	

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-002		
TP label Maximum APDU size: SABTE				
Coverage	Spec	[ISO/IEEE 11073-20601A]		
	Testable items	CommonCharac 4;M		
	Spec	[ISO/IEEE 11073-10424]		
	Testable items	ComChar 2; M		
Test purpos	ie	Check that:		
		If a manager receives APDU the with an error (roer) code of prot	nat is larger than the manager's tocol-violation.	receive buffer, it shall reply
		specializations the manager su	hall be at least as large as the la pports. The buffer size limitation of whether a standard or extende	s in this bullet and the next on
Applicability C_MAN_OXP_000 AND C_MAN_OXP_069				
Other PICS				
Initial condition Manager under test is in Operating state				

Test procedure	Simulated agent sends a Confirmed variable event report:
	a. ScanReportInfoVar. obs_scan_var:
	☐ Count =2
	☐ Length = 64472
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 61441
	attribute-value: '00(64448 bytes) 00'O
	}
	}
	}
	ObservationScan ::= {
	obj-handle: 1
	attributes: AttributeList ::= {
	AVA-Type ::= {
	attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC)
	attribute-value: 1
	}
	}
	}
	Check the response of the Manager under test
	3. Simulated agent sends a confirmed fixed format event report with one measurement.
	4. Check the response of the Manager under test
Pass/Fail criteria	In step 2 the Manager under test must respond with a "rors-cmip-confirmed-event-report"
	In step 4 the Manager under test must respond with a "rors-cmip-confirmed-event-report"
Notes	

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-003		
TP label		Attribute-Value-Map. Order change		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	DPU 10; M	DFG 10; M	DevMode 8; M
	items	TherMode 8; M		

Test purpose	Check that:		
root purpose	For [Standard-Configuration, Duration of Patient Use] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO		
	[AND]		
	For [Standard-Configuration, Duration of Flow Generation] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_NU_VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_BO.		
	[AND]		
	For [Standard-Configuration, Device Mode Set] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_ENUM_OBS_VAL_SIMP_OID then MDC_ATTR_TIME_STAMP_BO.		
	[AND]		
	For [Standard-Configuration, Therapy Mode Set] the [Attribute-Value-Map] attribute shall be present and its value shall be MDC_ATTR_ENUM_OBS_VAL_SIMP_OID then MDC_ATTR_TIME_STAMP_BO.		
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_069		
Other PICS			
Initial condition	Simulated Agent and Manager under test are in Operating State using the standard configuration.		
Test procedure	Simulated Agent sends a confirmed fixed format event report with that matches the Attribute-Value-Map order of:		
	 a. MDC_ATTR_NU_ VAL_OBS_BASIC then MDC_ATTR_TIME_STAMP_BO for Duration of Patient Use Object 		
	 b. MDC_ATTR_NU_ VAL_OBS_SIMP then MDC_ATTR_TIME_STAMP_BO for Duration of Flow Generation Object 		
	c. MDC_ATTR_ENUM_OBS_VAL_SIMP_OID, then MDC_ATTR_TIME_STAMP_BO for Device Mode Set		
	d. MDC_ATTR_ENUM_OBS_VAL_SIMP_OID, then MDC_ATTR_TIME_STAMP_BO for Therapy Mode Set.		
	2. Simulated Agent waits until it receives a confirmation		
	3. Simulated Agent sends a confirmed variable event report to change the Attribute-Value-Map configuration of handle 1 (Duration of Patient Use) Object) handle 2 (Duration of Flow Generation Object), handle 3 (Device Mode Set Object) and handle 4 (Therapy Mode Set Object) to reverse the values to:		
	 a. MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_NU_VAL_OBS_BASIC for Duration of Patient Use Object. 		
	 b. MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_NU_VAL_OBS_SIMP for Duration of Flow Generation Object. 		
	c. MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_ENUM_OBS_VAL_SIMP_OID for Device Mode Set Object.		
	 d. MDC_ATTR_TIME_STAMP_BO, then MDC_ATTR_ENUM_OBS_VAL_SIMP_OID for Therapy Mode Set Object. 		
	4. Simulated Agent waits until it receives a confirmation		
	Send a confirmed fixed format event report with the date first followed by a value for every object.		
	6. Simulated Agent waits until it receives a confirmation		
	7. Simulated Agent sends an Association Release Request (normal)		
	8. Simulated Agent waits until there is a Association Release Response		
	Simulated Agent sends an Association Request using the same standard configuration that was used previously		

	 If the Manager under test responds with association request response with "accepted- unknown-config", then
	 Simulated Agent sends the confirmed configuration event report with the standard configuration
	 Simulated Agent waits until there is a confirmation to the configuration event report that was sent.
	11. Simulated Agent sends a fixed event report following the standard configuration attribute-value-format (Observed value defined for every object, then MDC_ATTR_TIME_STAMP_BO). The observation should be reasonable Duration of Patient Use, Duration of Flow Generation, Device Mode Set and Therapy Mode Set observations.
	12. Simulated Agent waits until it receives a confirmation
Pass/Fail criteria	 In Step 2, 6 & 12 verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI verify the measurement and date are displayed properly).
	 In Step 2, 6 & 12 verify the manager under test uses minutes as the unit-code for Duration of Patient Use and Duration of Flow Generation measurement reports (or reports the proper value after convert to another unit-code)
	 In Step 2, 6 & 12 verify that if the manager utilizes a date / time stamp, then the manager uses a time stamp derived from the observation's time stamp (i.e. the actual observation may have occurred sometime in the past).
	 When automated, need to be careful about just sending these messages back to back since the ability to look at things like a UI may need there to be pauses for operator verification.
Notes	

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-004		
TP label		Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	DPU 10;M		
Test purpose	9	Check that:		
		For [Standard-Configuration] tl	ne [Attribute-Value-Map] attribute	e shall be present
		The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_BASIC MDC_ATTR_TIME_STAMP_BO		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_069		
Other PICS				
Initial condition Simulated Agent and Manager u configuration. (Duration of Patier set to MDC_DIM_MIN)				
Test procedure		 Simulated Agent sends a confirmed variable event report to change the Attribute-Value- Map configuration of handle 1 (Duration of Patient Use Object) to set the values to: MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_BO. 		
		2. Simulated Agent waits un	2. Simulated Agent waits until it receives a confirmation	
		Send a confirmed fixed fo Attribute, use MDC_DIM_	rmat event report with the new da MIN (2208).	ata layout. For unit-code
		4. Simulated Agent waits un	il it receives a confirmation	

	5. 6.	Simulated Agent sends a confirmed variable event report with just MDC_ATTR_NU_VAL_OBS_BASIC Attribute. Simulated Agent waits until it receives a confirmation
	0.	Simulated Agent waits until it receives a communation
Pass/Fail criteria	•	In Step 4, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI verify the measurement and date are displayed properly).
	•	In Step 6, verify that the manager under test is able to accept the data properly and applies the correct bytes to the correct attributes (e.g. if there is a UI verify the measurement is displayed properly)
	•	In Step 4 $\&$ 6, verify the manager under test uses Duration of Patient Use unit as the unit-code for the measurement reports
Notes		

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-005	
TP label		Unit-Code Duration of Patient Use. Use default minutes - variable format observation	
Coverage	overage Spec [ISO/IEEE 11073-10424]		
	Testable items	DPU 8;M	
Test purpose Check that: For [Standard-Configuration] the [Unit-Code] attribute shall be present The value of the [Unit-Code] attribute shall be MDC DIM MIN			
Applicability C_MAN_OXP_000 AND C_MAN_OXP_069		C_MAN_OXP_000 AND C_MAN_OXP_069	
Other PICS			
Initial Condition Simulated Agent and Manager under test are in Operating State using the standard configuration.		Simulated Agent and Manager under test are in Operating State using the standard configuration.	
 Send a confirmed variable format event report using a measurement in mir Simulated Agent waits until it receives a confirmation 		3	
		Verify that the manager under test is able to accept the data properly and applies minutes to the observation (e.g. if there is a UI verify the measurement and date are displayed properly even if they are converted to a different set of units).	
Notes	_		

TP Id TP/PLT/MAN/CLASS/SABTE/BV-006		TP/PLT/MAN/CLASS/SABTE/BV-006		
TP label		Unit-Code Duration of Flow Generation. Use default minutes - variable format observation		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	DFG 8;M		

Test purpose	Check that:
	For [Standard-Configuration] the [Unit-Code] attribute shall be present
	The value of the [Unit-Code] attribute shall be MDC_DIM_MIN
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_069
Other PICS	
Initial condition	Simulated Agent and Manager under test are in Operating State using the standard configuration.
Test procedure	 Send a confirmed variable format event report using a measurement in minutes Simulated Agent waits until it receives a confirmation
Pass/Fail criteria	Verify that the manager under test is able to accept the data properly and applies minutes to the observation (e.g. if there is a UI verify the measurement and date are displayed properly even if they are converted to a different set of units).
Notes	

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-007			
TP label		Special values. Not a number - fixed format (Std Config 2400)			
Coverage	Spec	[ISO/IEEE 11073-10424]			
	Testable items	DPU 10; M	DFG 10; M		
Test purpose	е	Check that:			
		Manager receives a NaN v	value (fixed format event report) but i	t does not use this value.	
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condit	ion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.			
Test procedure		 Simulated Agent sends a confirmed fixed event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value with the value for not a number (NaN (not a number) [exponent 0, mantissa +(2**11 -1) = 0x07FF for Duration of Patient Use], [exponent 0, mantissa +(2**23 -1) = 0x007FFFFF for Duration of Flow Generation]) and a time stamp Simulated Agent waits until it receives a confirmation from the Manager under test 			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).			
Notes		This test case has been considered as an implicit test case.			

TP ld	TP/PLT/MAN/CLASS/SABTE/BV-008
TP label	Special values. Not a number – variable format (Std Config 2400)

Coverage	Spec	[ISO/IEEE 11073-10424]				
	Testable items	DPU 12; M	DFG 12; M			
Test purpose		Check that: Manager receives a NaN value	(variable format event report) b	ut it does not use this value.		
Applicability		C_MAN_OXP_000 AND C_MA	N_OXP_069			
Other PICS						
Initial condit	ion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.				
Test procedure		 Simulated Agent sends a confirmed variable event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value with the value for not a number (NaN (not a number) [exponent 0, mantissa +(2**11 -1) = 0x07FF for Duration of Patient Use], [exponent 0, mantissa +(2**23 -1) = 0x007FFFFF for Duration of Flow Generation]) and a time stamp Simulated Agent waits until it receives a confirmation from the Manager under test 				
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement such as "—" or blanking the display area).				
Notes		This test case has been consid	lered as an implicit test case.			

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-009			
TP label		Special values. Not a	at this resolution - fixed format (Std Config 2400)	
Coverage	Spec	[ISO/IEEE 11073-104	424]		
	Testable items	DPU 10; R	DFG 10; R		
Test purpos	е	Check that:			
		Manager receives NRes value (fixed format event report) but it does not use this value.			
Applicability	1	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condit	tion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.			
Test procedure		1. Simulated Agent sends a confirmed fixed event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for not at this resolution (NRes (not at this resolution) [exponent 0, mantissa –(2**11) = 0x0800 for Duration of Patient Use], [exponent 0, mantissa –(2**23) = 0x00800000 for Duration of Flow Generation])			
		2. Simulated Agent waits until it receives a confirmation from the Manager under test			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).			
Notes		This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-010			
TP label		Special values. Not at this resolution - variable format (Std Config 2400)			
Coverage	Spec	[ISO/IEEE 11073-10)424]		
	Testable items	DPU 12; R	DFG 12; R		
Test purpos	se	Check that: Manager receives N	Res value (variable format ever	nt report) but it does not use this value.	
Applicability	у	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condi	tion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.			
Test procedure		1. Simulated Agent sends a confirmed variable event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for not at this resolution (NRes (not at this resolution) [exponent 0, mantissa –(2**11) = 0x0800 for Duration of Patient Use], [exponent 0, mantissa –(2**23) = 0x008000000 for Duration of Flow Generation])			
		2. Simulated Agent waits until it receives a confirmation from the Manager under test			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).			
Notes		This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-011				
TP label		Special values. Posi	itive infinity - fixed format (Std	Config 2400)		
Coverage	age Spec [ISO/IEEE 11073-10424]					
	Testable items	DPU 10; M	DFG 10; M			
Test purpos	se	Check that:	Check that:			
		Manager receives a + INFINITY value (fixed format event report) but it does not use this value.				
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_069				
Other PICS						
Initial condi	tion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.				
Test procedure		1. Simulated Agent sends a confirmed fixed event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for positive infinity (+ INFINITY [exponent 0, mantissa +(2**11 -2) = 0x07FE for Duration of Patient Use], [exponent 0, mantissa +(2**23 -2) = 0x007FFFFE for Duration of Flow Generation]) and a time stamp				
		Simulated Agent waits until it receives a confirmation from the Manager under test				

Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).
Notes	This test case has been considered as an implicit test case.

TP ld TP label		TP/PLT/MAN/CLASS/SABTE/BV-012			
		Special values. Pos	sitive infinity - variable format (Sto	d Config 2400)	
Coverage	Spec	[ISO/IEEE 11073-1	0424]		
	Testable items	DPU 12; R	DFG 12; R		
Test purpos	se	Check that:			
		Manager receives a + INFINITY value (variable format event report) but it does not use this value.			
Applicabilit	y	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condi	tion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.			
Test procedure		1. Simulated Agent sends a confirmed variable event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for positive infinity (+ INFINITY [exponent 0, mantissa +(2**11 -2) = 0x07FE for Duration of Patient Use], [exponent 0, mantissa +(2**23 -2) = 0x007FFFE for Duration of Flow Generation])			
		2. Simulated Agent waits until it receives a confirmation from the Manager under test			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).			
Notes		This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/SABTE/BV-013			
TP label		Special values. Negative infinity - fixed format (Std Config 2400)			
Coverage	Spec	[ISO/IEEE 11073-104	24]		
	Testable items	DPU 10; M DFG 10; M			
Test purpose		Check that: Manager receives a - INFINITY value (fixed format event report) but it does not use this value.			
Applicabilit	у	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condition		Simulated Agent and configuration 2400.	Manager under test are in C	Operating State using the standard	

Test procedure	 Simulated Agent sends a confirmed fixed event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for negative infinity (– INFINITY [exponent 0, mantissa –(2**11 –2) = 0x0802 for Duration of Patient Use], [exponent 0, mantissa –(2**23 –2) = 0x00800002 for Duration of Flow Generation]) and a time stamp 	
	2. Simulated Agent waits until it receives a confirmation from the Manager under test	
Pass/Fail criteria	Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).	
Notes	This test case has been considered as an implicit test case.	

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-014			
TP label		Special values. Negative infinity - variable format (Std Config 2400)			
Coverage	Spec	[ISO/IEEE 11073-104	24]		
	Testable items	DPU 12; R		DFG 12; R	
Test purpose	e	Check that:			
		Manager receives a - INFINITY value (variable format event report) but it does not use this value.			
Applicability	,	C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condit	ion	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.			
Test procedure		1. Simulated Agent sends a confirmed variable event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for negative infinity (– INFINITY [exponent 0, mantissa –(2**11 –2) = 0x0802 for Duration of Patient Use], [exponent 0, mantissa –(2**23 –2) = 0x00800002 for Duration of Flow Generation])			
		2. Simulated Agent waits until it receives a confirmation from the Manager under test			
Pass/Fail criteria		Verify that the manager under test is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).			
Notes		This test case has been considered as an implicit test case.			

TP ld		TP/PLT/MAN/CLASS/	SABTE/BV-015		
TP label Special values. Reserved - fixed format (Std Config			ved - fixed format (Std Config 2	2400)	
Coverage Spec Testable items		[ISO/IEEE 11073-10424]			
		DPU 10; M	DFG 10; M		
Test purpose		Check that: Manager receives a Reserved for future use value (fixed format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 At	ND C_MAN_OXP_069		

Other PICS			
Initial condition	Simulated Agent and Manager under test are in Operating State using the standard configuration 2400.		
Test procedure	1. Simulated Agent sends a confirmed fixed event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for reserved (Reserved for future use [exponent 0, mantissa – (2**11 –1) = 0x0801 for Duration of Patient Use], [exponent 0, mantissa –(2**23 –1) = 0x00800001 for Duration of Flow Generation]) and a time stamp		
	2. Simulated Agent waits until it receives a confirmation from the Manager under test		
Pass/Fail criteria	Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).		
Notes	This test case has been considered as an implicit test case.		

TP Id		TP/PLT/MAN/CLASS/SABTE/BV-016			
TP label		Special values. Reserved - variable format (Std Config 2400)			
Coverage	Spec	[ISO/IEEE 11073-10424]			
	Testable items	DPU 12; R	DFG 12; R		
Test purpose		Check that:			
		Manager receives a Reserved for future use value (variable format event report) but it does not use this value.			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_069			
Other PICS					
Initial condition		Simulated Agent and Manager under test are in Operating State using the standard configuration 1800.			
Test procedure		 Simulated Agent sends a confirmed variable event report for handle 1 (Duration of Patient Use Object) and handle 2 (Duration of Flow Generation Object) containing an observation value set to the value for reserved (Reserved for future use [exponent 0, mantissa – (2**11 –1) = 0x0801 for Duration of Patient Use], [exponent 0, mantissa –(2**23 –1) = 0x00800001 for Duration of Flow Generation]) 			
		Simulated Agent waits un	til it receives a confirmation from	the Manager under test	
Pass/Fail criteria		Verify that the manager under test either reports an error or is able to accept the data, but does not use the values as if they were an actual measurement (e.g. if there is a UI verify the measurement is displayed in some form that indicates it is not a measurement).			
Notes	Notes This test case has been considered as an implicit test case.				

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