ITU-T

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU



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

1-0-1



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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

The scope of Recommendation ITU-T H.846 is to provide the test suite structure and test purposes (TSS & TP) for the PAN/LAN/TAN interface based on the requirements defined in Continua specifications. 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

| Edition | Recommendation | Approval | Study Group | Unique ID* |
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| 1.0 | ITU-T H.846 | 2015-01-13 | 16 | 11.1002/1000/12275 |

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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, <u>http://handle.itu.int/11.1002/1000/11</u> <u>830-en</u>.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <u>http://www.itu.int/ITU-T/ipr/</u>.

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Electronic attachment: Protocol implementation conformance statements (PICS) and 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. Versions of this specification existed before transposition and are indicated 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 Continua DG 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 Continua DG 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 Continua specifications. The objective of this test specification is to provide a high probability of air interface interoperability between different devices.

The TSS and TP for the PAN/LAN/TAN interface document have been divided into ten parts. Each part is listed below:

- **Part 1**: Optimized exchange protocol [IEEE 11073-20601A] Agent
- **Part 2**: Optimized exchange protocol [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

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¹ This Recommendation includes an electronic attachment with 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.

| [ITU-T H.810] | Recommendation ITU-T H.810 (2013), Interoperability design 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. |
| [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, <i>Health informatics – Personal health device communication – Part 20601: Application profile – Optimized exchange protocol,</i> including ISO/IEEE 11073-20601:2010 Amd 1:2015. < <u>http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=54331</u> > with |
| [ISO/IEEE 11073-104xx] | < <u>http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63972</u> > ISO/IEEE 11073-104xx (in force), <i>Health informatics – Personal</i> <i>health device communication – Device specialization</i> . |
| | NOTE – This is shorthand to refer to the collection of device specialization standards that utilize [ISO/IEEE 11073-20601A], where xx can be any number from 01 to 99, inclusive. |
| [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 International Normalized Ratio INR 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 |
| 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 document 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.

| CDG name | Transposed as | Version | Description | Designation |
|------------------|---------------|---------|---|-------------|
| 2013 plus errata | ITU-T H.810 | 4.1 | Release 2013 plus errata noting all ratified bugs. | - |
| 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]. | - |

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

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: 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 analyser (BCA)
 - Subgroup 1.3.13: Basic electrocardiograph (ECG)
 - Subgroup 1.3.14: International normalized ratio (INR)
- 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)
- 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)
- 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 measurement requirements (BPM)
 - Subgroup 2.4.4: Whitepaper heart rate requirements (HR)
 - Subgroup 2.4.5: Whitepaper glucose meter requirements (GL)

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 (TP)

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

A.1 TP definition conventions

The test purposes 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".
 - \circ <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)
 - <DUT>: This is the device under test.
 - AG: PAN/LAN Agent
 - MAN: PAN/LAN Manager
 - <GR>: This identifies a group of test cases.
 - <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.).
- **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 ld | PId TP/PLT/MAN/CLASS/WEG/BV-001 | | | | | | |
|----------------|---------------------------------|--|--|--------------------------------------|---|-------------------------------|--|
| TP label | | Association procedure Manager WEG | | | | | |
| Coverage | Spec | [IS | [ISO/IEEE 11073-10415] | | | | |
| | Testable | Weighing.Association 8;O | | g.Association 8;O | Weighing.Association 12;M | Weighing.Association 13;M | |
| | items | We | eighir | g.Association 14;M | Weighing.Association 15;M | Weighing.Association 16;M | |
| | | We | eighir | g.Association 17;M | Weighing.Association 18;M | Weighing.Association 19;M | |
| | | We | eighir | g.Association 20;M | Weighing.Association 21;M | Weighing.Association 22;M | |
| | | We | eighir | g.Association 23;M | | | |
| Applicability | , | | - | _OXP_000 AND C_M | AN OXP 024 | | |
| Initial condit | | | | nager is in the unasso | | | |
| | | | | | | monogor under toot with the | |
| Test proced | ure | 1. | field | | is an association request to the | manager under test, with the | |
| | | | | protocol-version = '10 | 000000000000000000000000000000000000000 | 000000'B | |
| | | | encoding-rules= '10000000000000'B | | | | |
| | | | nomenclature-version = '100000000000000000000000000000000000 | | | | |
| | | □ functional-units = '00000000000000000000000000000000000 | | | | | |
| | | □ system-type = '000000001000000000000000000000000000 | | | | | |
| | | □ dev-config-id = 16449 | | | | | |
| | | | | data-rep-mode-capat | 0 = | | |
| | | | | data_req_mode_ | _flags= '000000000000001'B | | |
| | | | | data_req_init_ag | gent_count = 1 | | |
| | | | | data_req_init_ma | anager_count =0 | | |
| | | | | option-list.length=0; | | | |
| | | 2. The manager under test sends an association response. The fields of interest are: | | | | | |
| | | | a. | APDU Type | | | |
| | | | | $\Box field-length = 2 b$ | bytes | | |
| | | | | □ field-value = 0xE | 3 0x00 (AareApdu) | | |
| | | | b. | Result | | | |
| | | | | □ field- type = Asse | ociateResult | | |
| | | | | □ field-length = 2 b | bytes | | |
| | | | | □ field-value = One | e of the following: | | |
| | | | | If associatio | n is accepted, field-value=0x00 | 0x00. | |
| | | | | If associatio | n is rejected-permanent, field-va | alue=0x00 0x01. | |
| | | | | If associatio | n is rejected-transient, field-valu | ie=0x00 0x02. | |
| | | | | If associatio | n is accepted-unknown-config, t | field-value=0x00 0x03. | |
| | | | | If associatio | n is rejected-no-common-protoc | col, field-value=0x00 0x04. | |
| | | | | If associatio | n is rejected-no-common-param | neter, field-value=0x00 0x05. | |
| | | | | If associatio | n is rejected-unknown,field-valu | e=0x00 0x06. | |

| | If association is rejected unsutherized field value_0v00.0v07 |
|----|--|
| | 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 = 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 |
| | $\Box \text{field-length} = 8 \text{ bytes}$ |
| | □ 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) |
| 1. | |
| | field-type = DataReqModeFlags field-length = 2 bytes |
| | $\Box \text{field-length} = 2 \text{ bytes}$ |
| | □ 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | $\Box \text{field-type} = INT-U8$ |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 b |
| Pass/Fail criteria | All chec | ked values are as specified in the test procedure. |
| Notes | Value fo | r protocol-version has been modified according to [ISO/IEEE 11073-20601A]. |

| TP ld | | TP/PLT/MAN/CLASS/WEG/BV-002 | | | | | |
|---------------|-------------------|--|--|--|--|--|--|
| TP label | | Configuration Event Report. Weighing Scale standard configuration | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | | |
| | Testable items | ConfEventRep 18;M | | | | | |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_024 | | | | | |
| Initial condi | tion | The simulated agent and the manager under test are in an unassociated state. | | | | | |
| Test proced | lure | 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 response, the field of interest is: | | | | | |
| | | a. Result i field- type = INT-U16 | | | | | |
| | | 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" | | | | | |
| | | The simulated agent sends a configuration event report with config-report-id set to 0x05 0xDC | | | | | |
| | | 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. Th | 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". |
| | • The | e measurement is correctly presented. |
| Notes | See bug | http://continua.plugfests.com/show_bug.cgi?id=123 |

| TP ld | | TP/PLT/MAN/CLASS/WEG/BV-003 | | |
|----------------|-------------------|--|--|--|
| TP label | | Attribute-Value-Map. Order change. | | |
| Coverage | Spec | [ISO/IEEE 11073-10415] | | |
| | Testable items | WeightNumClass 22;M | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_024 | | |
| Initial condi | 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 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. | | |
| | | 3. 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. |
| | 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 | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 | | |
| Initial condit | ion | 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 cri | teria | • 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 label Unit-Code. Change from default kilograms to pounds – fixed format observation Coverage Spec [ISO/IEEE 11073-10415] Testable items WeightNumClass 20;M Applicability Applicability C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 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 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 waits until it receives an association release response. 7. The simulated agent sends 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. 9. The simulated agent sends a fixed event report with an observation in kilograms followed by date and time stamp. • The simulated agent waits until it receives a confirmation in kilograms followed by date and time stamp. | TP ld | | | | |
|--|--------------------|------|---|--|--|
| Coverage Spec [ISO/IEEE 11073-10415] Testable items WeightNumClass 20;M Applicability C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 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 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 waits until it receives an association release response. 7. 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. 9. The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 9. The simulated agent waits until it receives a confirmation from the confirmed configuration event report with an observation in kilograms followed by date and time stamp. 9. The simulated agent waits until it receives | | | TP/PLT/MAN/CLASS/WEG/BV-005 | | |
| Testable items WeightNumClass 20;M Applicability C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 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 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 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 an association release response. 7. The simulated agent sends an association release response. 7. The simulated agent under test responds with 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 8. The simulated agent sends the confirmed configuration event report with the standard configuration. 9. The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 9. The simulated agent waits until it receives a confirmation in kilograms followed by date and time stamp. 10. The simulated agent waits until it receives a confirmation. 9. The simulated age | TP label | | Unit-Code. Change from default kilograms to pounds – fixed format observation | | |
| Items Applicability C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 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 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 waits until it receives a confirmation. 5. The simulated agent waits until it receives 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 sends a fixed event report with an observation in kilograms followed by date and time stamp. 0. The simulated agent sends a fixed event report with an observation in kilograms followed by date and time stamp. 10. The simulated agent sends a fixed event report with an observation in kilograms followed by date and time stamp. 10. The simulated ag | Coverage | Spec | [ISO/IEEE 11073-10415] | | |
| 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 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 waits until it receives a confirmation. 5. The simulated agent sends an association release request (normal). 6. The simulated agent sends 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 9. The simulated agent sends the confirmed configuration event report with the standard configuration. 9. 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. 9. The simulated agent waits until it receives a confirmation. 9. The simulated agent waits until it receives a confirmation. 9. The simulated agent sends a fixed event report with an observa | | | WeightNumClass 20;M | | |
| standard configuration. Test procedure 1. 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. 3. 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 waits until it receives a confirmation. 5. The simulated agent waits until it receives 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 response with "accepted-unknown-config", then 9. The simulated agent sends the confirmed configuration event report with the standard configuration. 8. If the manager under test responds with association request response with "accepted-unknown-config", then 9. The simulated agent sends the confirmed configuration event report with the standard configuration. 9. The simulated agent waits until it receives a confirmation from the confirmed configuration event report just sent. 9. The simulated agent waits until it receives a confirmation in kilograms followed by date and time stamp. 10. The simulated agent waits until it receives a confirmation. 9. 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 observ | Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 | | |
| of handle 1 (Body Weight Object) to pounds nomenclature code MDC_DIM_LB (1760). 2. The simulated agent waits until it receives a confirmation. 3. 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 waits until it receives a confirmation. 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 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 papplies kilograms to the observation (e.g. if there is a UI, verify that the measurement | Initial condit | ion | | | |
| 3. 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 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). | Test proced | ure | | | |
| 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 sends the confirmed configuration 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 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). | | | 2. 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 applies kilograms to the observation (e.g. if there is a UI, verify that the measurement and applies kilograms to the observation (e.g. if there is a UI, verify that the measurement | | | 3. Send a confirmed fixed format event report using a measurement in pounds followed by | | |
| 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 papelies kilograms to the observation (e.g. if there is a UI, verify that the measurement | | | 4. The simulated agent waits until it receives a confirmation. | | |
| 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 | | | 5. The simulated agent sends an association release request (normal). | | |
| 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 properly even if they are converted to a different set of units). | | | 6. The simulated agent waits until it receives an association release response. | | |
| 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. 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 | | | | | |
| 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. 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 | | | | | |
| 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 | | | • The simulated agent sends the confirmed configuration event report with the standard configuration. | | |
| 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 | | | | | |
| 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 | | | | | |
| 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 | | | 10. The simulated agent waits until it receives a confirmation. | | |
| applies kilograms to the observation (e.g. if there is a UI, verify that the measurement | Pass/Fail criteria | | applies pounds to the observation (e.g. if there is a UI, verify that the measurement and | | |
| | | | applies kilograms to the observation (e.g. if there is a UI, verify that the measurement | | |
| Notes | Notes | | | | |

| TP Id TP/PLT/MA | | TP/PLT/MAN/CLASS/WEG/BV-005_A |
|---|--|--|
| TP label Unit-Code. Do not change from default kilograms to pounds – fixed format | | Unit-Code. Do not change from default kilograms to pounds – fixed format observation |
| Coverage Spec [IS0 | | [ISO/IEEE 11073-10415] |

| | Testable items | WeightNumClass 20;M | | |
|-------------------|-------------------|---|--|--|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_024 AND (NOT(C_MAN_WEG_001)) | | |
| Initial condition | on | The simulated agent and the manager under test are in the operating state using the standard configuration. | | |
| Test procedu | re | 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. | | |
| | | 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 crite | eria | 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 Unit-Code. Use default kilograms – variable format observation. | | |
|--------------------|-------------------|--|--|--|
| TP label | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10415] | | |
| | Testable items | WeightNumClass 20;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_024 | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | |
| Test procedure | | 1. Send a confirmed variable format event report using a measurement in kilograms. | | |
| | | 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 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-007 | | TP/PLT/MAN/CLASS/WEG/BV-007 |
|---|--|--|
| TP label Unit-Code. Change from default kilograms to pounds | | Unit-Code. Change from default kilograms to pounds – variable format observation |
| Coverage Spec [ISO/IEEE 11073-10415] | | [ISO/IEEE 11073-10415] |

| Test item | | ightNumClass 20;M | | | |
|--------------------|-----|---|---|--------------------------------|--|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_024 AND C_MAN_WEG_001 | | | |
| Initial condition | | e simulated agent and the metand configuration. | nanager under test are in the op | erating state using the | |
| Test procedure | 1. | | format event report to set the unandle 1 (Body Weight Object) a | | |
| | 2. | The simulated agent waits | until it receives a confirmation. | | |
| | 3. | | variable format event report with nit the unit-code attribute in the o | | |
| | 4. | The simulated agent waits | until it receives a confirmation. | | |
| | 5. | The simulated agent send | s an association release reques | t (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. | | | |
| | | If the manager under test unknown-config", then | responds with association reque | est response with "accepted- | |
| | | • The simulated agent standard configuration | sends the confirmed configuration. | on event report with the | |
| | | • The simulated agent configuration event re | waits until it receives a confirma port just sent. | tion from the confirmed | |
| | 9. | kilograms followed by date | s a confirmed variable event rep and time stamp (i.e., do not se by the standard configuration). | | |
| | 10. | The simulated agent waits | until it receives a confirmation. | | |
| Pass/Fail criteria | • | and applies pounds to the | at the manager under test is able observations (e.g. if there is a L operly even if they are converted | JI, verify that the measuremen | |
| | • | applies kilograms to the ol | nanager under test is able to ac oservation (e.g. if there is a UI, v operly even if they are converted | verify that the measurement | |
| 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_024 | | |
| 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 | | |

| | <pre> Length = 858 ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { attribute-id: 61441 attribute-value: '00(832 bytes) 00'0 } } ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { attribute-id: 2646 (MDC_ATTR_NU_VAL_OBS_SIMP) attribute-value: 68 } } } </pre> |
|--------------------|--|
| | 2. Check the response of the manager under test. |
| | 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/WEG/BV-009 |
|--|-------------------|--|
| TP label | | Special values. Not a number – fixed format |
| Coverage | Spec | [ISO/IEEE 11073-10415] |
| | Testable items | WeightNumClass 22; M |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| Initial condition The simulated agent and the manager under test are in the operating state us standard configuration. | | 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 "not a number" (NaN, [exponent 0, mantissa +(2**23 –1) = 0x007FFFF]) 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/WEG/BV-010 |
|---|-------------------|--|
| TP label | | Special values. Not a number – variable format |
| Coverage | Spec | [ISO/IEEE 11073-10415] |
| | Testable items | WeightNumClass 27; C |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| Initial condition The simulated agent and the manager under test are in the operating state standard configuration. | | 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 | Spec | [ISO/IEEE 11073-10415] |
| | Testable items | WeightNumClass 22; M |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| 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 "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. |
| 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-012 |
|---|-------------------|--|
| TP label Special values. Not at this resolution – variable format | | Special values. Not at this resolution – variable format |
| Coverage | Spec | [ISO/IEEE 11073-10415] |
| | Testable items | WeightNumClass 27; C |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_024 |

| 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 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 |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| 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 |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| 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 | | Special values. Negative infinity – fixed format |
| Coverage | Spec | [ISO/IEEE 11073-10415] |
| | Testable items | WeightNumClass 22; M |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| 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. | | This test case has been considered as an implicit test case. |

| TP ld | | 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 |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_024 |
| | | 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. | | 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 | Wei | ghtNumClass 22; M | | |
|----------------|-------------------|------|---|--|---|
| Applicability | 1 | C_N | IAN_OXP_000 AND C_M | AN_OXP_024 | |
| Initial condit | tion | | simulated agent and the r idard configuration. | nanager under test are in the c | operating state using the |
| Test procedure | | 1. | Object) containing an obs | is a confirmed fixed event report ervation with the value that is a $a - (2^{**}23 - 1) = 0x00800001)$ | reserved (Reserved for future |
| | | 2. | The simulated agent waits | s until it receives a confirmation | n from the manager under test. |
| Pass/Fail cri | teria | • | but does not use the value | | r or is able to accept the data, easurement (e.g. if there is a UI, hat indicates it is not a |
| Notes | | This | test case has been consid | dered 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 | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_024 | | | |
| Initial cond | ition | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | |
| Test proced | dure | 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 ld | | TP/PLT/MAN/CLASS/GL/BV-000 | | | | | |
|----------------------------------|----------|--|---|------------------------------|-------------------------------------|--|--|
| TP label | | Association procedure Manager GL | | | | | |
| Coverage Spec | | [IEEE 11073-10417] | | | | | |
| | 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 | | |
| Applicability | y | C_MAN_OXP_000 AND C_M | | AN_OXP_019 | | | |
| Initial condi | tion | The manage | er is in the unasso | ciated state. | | | |
| Initial condition Test procedure | | 1. The simulated agent sends an association request to the manager under test, with the fields: protocol-version = '100000000000000000000000000000000000 | | | | | |
| | | a. | APDU Type field-length = | = 2 bytes | | | |
| | | | | 0xE3 0x00 (AareApdu) | | | |
| | | b. | Result | Approximate Deput | | | |
| | | | field- type = field-length = | AssociateResult = 2 bytes | | | |
| | | | - | One of the following: | | | |
| | | | | iation is accepted, field-va | alue=0x00 0x00. | | |
| | | | If assoc | iation is rejected-permane | ent, field-value=0x00 0x01. | | |
| | | | If assoc | iation is rejected-transien | t, field-value=0x00 0x02. | | |
| | | | If assoc | iation is accepted-unknov | vn-config, field-value=0x00 0x03. | | |
| | | | If assoc | iation is rejected-no-comr | mon-protocol, field-value=0x00 0x04 | | |
| | | | If assoc 0x05. | iation is rejected-no-comr | non-parameter, field-value=0x00 | | |
| | | | If assoc | iation is rejected-unknow | n = 0x00 0x06. | | |
| | | | If assoc | iation is rejected-unautho | rized, 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 = 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) |
| Ι. | 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 | |
| | $\Box field-length = = 1 byte$ | |
| | $\Box field-value = 0x00$ | |
| | n. data-req-init-manager-count (DataReqModeCapab) | |
| | □ field- type = INT-U8 | |
| | $\Box field-length = = 1 byte$ | |
| | $\Box field-value = 0x00$ | |
| 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/GL/BV-001 | | | | | |
|----------------|-------------------|---|-------------------|----------------------------|-----------------------------|---|--|
| TP label | | Configuration Event Report. Glucose Meter standard configuration 1700 | | | | | |
| Coverage | Spec | [IEEE 11073-10417] | | | | | |
| | Testable items | ConfProc 4;M | | 4;M | MDSEvents 2;M | ObjAccServ 5;M | |
| | Spec | [IS | O/IEEE | 11073-20601A] | | | |
| | Testable items | Co | ConfEventRep 18;M | | | | |
| Applicabilit | У | C_ | MAN_C | DXP_000 AND C_M | IAN_OXP_019 | | |
| Initial condi | ition | 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 1700. | | | | | |
| Test procedure | | 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 n | nanager under test | responds with an associat | ion response, the field of interest is: | |
| | | a. Result | | | | | |
| | | □ field- type = INT-U16 | | | | | |
| | | | | i field-length =2 b | oytes | | |
| | | | | ield-value = 0x0 | 00 0x00 (accepted) or 0x0 | 0 0x03 (accepted-unknown-config) | |
| | | If the result of the association response was "accepted-unknown-config" | | | | | |
| | | 3. | The s 0xA4 | imulated agent sen | ds a configuration event re | eport with config-report-id set to 0x06 | |
| | | 4. | The n | nanager under test | must respond with: | | |
| | | | a. A | PDU Type | | | |
| | | | | field-length =2 b | oytes | | |
| | | | | field-value =0xE | 7 0x00 (PrstAdpu) | | |
| | | | b. lı | nvoke-id | | | |
| | | | | field- type = INT | ⁻ -U16 | | |
| | | | | field-length =2 b | oytes | | |
| | | | | field-value= it m message. | oust be the same as the inv | voke-id of the simulated agent's | |

| | 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. |
| | The simulated agent sends a fixed event report with one Blood Glucose (Capillary Whole blood reference method) 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 | |
| <u> </u> | · |

| 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 | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | |
| Initial cond | ition | 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 | | | |

| Notes | |
|--------------------|---|
| | The measurement is correctly presented. |
| 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". |
| | 5. 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. |
| | Wait until the operating state is reached in both cases. |
| | accepted-config: 0x00 0x00 |
| | ConfigReportRsp.config-result: One of: |
| | ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message |
| | Event-replay-info.length (2 bytes) |
| | f. The following six bytes indicate: |
| | field-value= MDC_NOTI_CONFIG |
| | $\Box field-length = 2 \text{ bytes}$ |
| | e. Event-type: |
| | □ field-value: 0xXX 0xXX |
| | □ field-length =4 bytes |
| | □ field- type = INT-U32 |
| | d. Event-time: |
| | $\Box \text{field-value} = 0x00 \ 0x00$ |
| | □ field-length =2 bytes |
| | □ field- type = HANDLE |
| | c. Obj-Handle: |
| | field-value= it must be the same as the invoke-id of the simulated agent's message. |
| | □ field-length =2 bytes |
| | □ field- type = INT-U16 |
| | b. Invoke-id |
| | □ field-value =0xE7 0x00 (PrstAdpu) |
| | □ field-length =2 bytes |
| | a. APDU Type |
| | The manager under test must respond with: |
| | The simulated agent sends a configuration event report with config-report-id set to 0x06 0xA5 |
| | If the result of the association response was "accepted-unknown-config" |
| | □ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config) |
| | field-length =2 bytes |

| TP ld | | TP/PLT/MAN/CLASS/GL/BV-002 |
|----------|------|---|
| TP label | | 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 | | | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | |
| Initial condition | | The manager under test is in the operating state. | | | | |
| Test proced | ure | <pre>1. 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 ::= { ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { Attribute-id: 2636 (MDC_ATTR_NU_VAL_OBS_BASIC) attribute-value: 100 } } } </pre> | | | | |
| | | Check the response of the manager under test. The simulated agent sends a confirmed fixed format event report with one | | | | |
| | | measurement. | | | | |
| | | 4. Check the response of the manager under test. | | | | |
| Pass/Fail cri | iteria | • 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 | | 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 | | |
|--------------------|---|--|--|
| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_OXP_003 | | |
| Initial condition | The manager under test is in the operating state. | | |
| Test procedure | <pre>1. 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-value: '00(64448 bytes) 00'0 } } ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { attribute-value: '00(64448 bytes) 00'0 }</pre> | | |
| Pass/Fail criteria | 4. Check the response of the manager under test. 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 | report". | | |

| TP ld | | TP/PLT/MAN/CLASS/GL/BV-003 | | |
|-------------------|-------------------|---|--|---|
| TP label | | Blood Glucose Attribute-Va | alue-Map. Order change | |
| Coverage Spec | | [IEEE 11073-10417] | | |
| | Testable items | BloodGL 10;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | |
| Test procedure | | 5 | sends a confirmed fixed format even rder of MDC_ATTR_NU_VAL_OBS | 1 |

| | M | DC_ATTR_TIME_STAMP_ABS. |
|--------------------|-----------|---|
| | 2. Th | ne simulated agent waits until it receives a confirmation. |
| | Va | ne simulated agent sends a confirmed variable event report to change the Attribute- alue-Map configuration of handle 1 (Blood Glucose Object) to reverse the values to: DC_ATTR_TIME_STAMP_ABS, then MDC_ATTR_NU_VAL_OBS_BASIC. |
| | 4. Th | ne simulated agent waits until it receives a confirmation. |
| | | end a confirmed fixed format event report with the date first followed by a blood ucose value (in mg/dL since it is the standard configuration unit code). |
| | 6. Th | ne simulated agent waits until it receives a confirmation. |
| | 7. Th | ne simulated agent sends an association release request (normal). |
| | 8. Th | ne simulated agent waits until there is an association release response. |
| | | ne simulated agent sends an association request using the same standard onfiguration that was used previously. |
| | | the manager under test responds with association request response with "accepted- hknown-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. |
| | att Mi | ne simulated agent sends a fixed event report following the standard configuration tribute-value-format (MDC_ATTR_NU_VAL_OBS_BASIC, then DC_ATTR_TIME_STAMP_ABS). The observation should be a reasonable mg/dL ood glucose observation. |
| | 12. Th | ne simulated agent waits until it receives a confirmation. |
| Pass/Fail criteria | pr | steps 2, 6 and 12 verify that the manager under test is able to accept the data operly and applies the correct bytes to the correct attributes (e.g. if there is a UI, verify at the measurement and date are displayed properly). |
| | the | steps 2, 6 and 12 verify that the manager under test uses mg/dL as the unit code for e measurement report (or reports the proper value after conversion to another unit ode). |
| | ma | steps 2, 6 and 12 verify that if the manager utilizes a date / time stamp, then the anager uses a time stamp derived from the observation's time stamp (i.e. the actual oservation may have occurred sometime in the past). |
| | ba | hen automated, it is necessary to be careful about sending these messages back to ack since the ability to look at things like an UI may require that there be pauses for perator verification. |
| | | |

| TP ld | | TP/PLT/MAN/CLASS/GL/BV-004 | | |
|-------------------|-------------------|---|--|--|
| TP label | | Blood Glucose Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map | | |
| Coverage Spec [II | | [IEEE 11073-10417] | | |
| | Testable items | BloodGL 10;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_001 | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. (Blood Glucose Numeric standard configuration Unit code attribute is set to 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: | | |

| Notes | |
|--------------------|---|
| | In steps 4 and 6, verify that the manager under test uses mmol/L as the unit code for the measurement reports. |
| | • 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). |
| 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). |
| | 6. 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. |
| | 4. 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). |
| | 2. The simulated agent waits until it receives a confirmation. |
| | MDC_ATTR_NU_VAL_OBS_BASIC, MDC_ATTR_UNIT_CODE, then MDC_ATTR_TIME_STAMP_ABS. |

| 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] | | |
| | Testable items | Communication 9; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_001 | | |
| 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 (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 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. |
|--------------------|--|
| | The simulated agent sends a fixed event report with an observation in mg/dL 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 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 | |

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| 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 AND (NOT(C_MAN_GL_001)) | | |
| Initial conditi | ion | 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 (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. | | |
| | | 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 | 1 | Blood Glucose Unit-Co | ode. Use default mg/dL – variable format observation |
| Coverage | Spec | [IEEE 11073-10417] | |
| | Testable items | BloodGL 8;M | |

| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_019 | |
|--------------------|--|--|
| 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 | | |

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| 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] | | |
| | Testable items | Communication 9; M | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_001 | | |
| Initial condi | lion | 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 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 cri | teria | 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 measuremen | | |

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| Notes | | 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 |
| | | and date are displayed properly even if they are converted to a different set of units). |

| TP ld | | 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 | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| 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. | | |
| | | 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-009 |
|--------------------|-------------------|--|
| TP label | | Special values. Not a number – variable format (Std Config 1700) |
| Coverage | Spec | [IEEE 11073-10417] |
| | Testable items | BloodGL 20; M |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_019 |
| 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 ld | | 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 |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 |
| 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 cas | | This test case has been considered as an implicit test case. |

| TP ld | | 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 |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_019 |
| 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 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/GL/BV-012 |
|--|-------------------|--|
| TP label Special values. Positive infinity – fixed format (Std Config 1700) | | Special values. Positive infinity – fixed format (Std Config 1700) |
| Coverage Spec | | [IEEE 11073-10417] |
| | Testable items | BloodGL 10; M |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 |

| 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| 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 ld | | 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 | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| Initial condit | 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 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. | | |
| Pass/Fail criteria | | | nder test is able to accept the da actual measurement (e.g. if ther | |

| 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-015 | | |
|----------------------------------|-------------------|---|--|--|
| TP label | | Special values. Negative infinity – variable format (Std Config 1700) | | |
| Coverage Spec [IEEE 11073-10417] | | [IEEE 11073-10417] | | |
| | Testable items | BloodGL 20; M | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| 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 Spec | | [IEEE 11073-10417] | | | |
| | Testable items | BloodGL 10; M | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | |
| 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 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/GL/BV-017 |
|----------|--|
| TP label | Special values. Reserved – variable format (Std Config 1700) |

| Coverage Spec | | [IEEE 11073-10417] | | |
|--------------------------|-------------------|--|------------------------------------|------------------------------|
| | Testable items | BloodGL 20; M | | |
| Applicability | | C_MAN_OXP_000 AND C_MA | AN_OXP_019 | |
| 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 reserved (Reserved for future use, [exponent 0, mantissa –(2**11 –1) = 0x0801]). | | |
| | | 2. The simulated agent waits | s 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 | | This test case has been consid | dered as an implicit test case. | |

| TP ld | | TP/PLT/MAN/CLASS/GL/BV-018 | | | |
|----------------|-------------------|--|---|---|------------------------------|
| TP label | | Control Solution Attribute-Value-Map. Order change | | | |
| Coverage | Spec | [IEE | E 11073-10417] | | |
| | Testable items | Ctrl | Sol 8;M | | |
| Applicability | / | C_N | /AN_OXP_000 AND C_MA | AN_OXP_019 | |
| Initial condi | tion | | simulated agent and the n | nanager under test are in the op | perating state using the |
| 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. | | | |
| | | 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 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 send configuration that was use | s an association request using d previously. | the same standard |
| | | 10. | If the manager under test unknown-config", then | responds with association requi | est response with "accepted- |
| | | | • The simulated agent standard configuration | sends the confirmed configuration. | on event report with the |
| | | • The simulated agent waits until there is a confirmation to the configuration event report that was sent. | | | |

| | 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. 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 ld | | 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 | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_002 | | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration (Control Solution Numeric standard configuration Unit code attribute is set to 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. | | | |
| l | | 2. The simulated agent waits until it receives a confirmation. | | | |
| 1 | | 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). | | | |
| 1 | | 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. | | | |
| l | | 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 Id TP label | | TP/PLT/MAN/CLASS/GL/BV-020 | | |
|--------------------|-------------------|--|--|--|
| | | 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] | | |
| | Testable items | Communication 9; M | | |
| Applicability | у | C_MAN_OXP_000 AND C_MAN_OXP_019 AND C_MAN_GL_002 | | |
| Initial condi | tion | 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 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 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 mg/dL 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 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 ld | | 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 | Spec | [IEEE 11073-10417] |

| | Testable items | CtrlSol 6;M | | |
|--------------------|-------------------|--|------------------------------------|--|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 AND (NO | OT(C_MAN_GL_002)) | |
| Initial condition | | The simulated agent and the manager under test are standard configuration. | in the operating state using the | |
| 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). | | |
| | | The simulated agent waits until it receives a conf release association or rorj message or until TO c | | |
| | | If the manager has sent a confirmation in step 2, report using a measurement in mmol/L followed l | | |
| | | The simulated agent waits until it receives a conf release association or rorj message or TO cer-m | | |
| | | If the manager has sent a confirmation in step 4, measurements have been properly received and | | |
| Pass/Fail criteria | | In step 2, verify that manager sends a confirmation sends a roer message, abrt message, release as | | |
| | | In step 4, verify that manager sends a confirmation sends a roer message, abrt message, release as | | |
| | | In step 5, verify that measurements do not appear somehow designated as 'unsupported' data. | ar, or if they do appear, they are | |
| Notes | | | | |

| TP ld | | TP/PLT/MAN/CLASS/GL/BV-0 |)22 | |
|--------------------|-------------------|---|--|-------------------------|
| TP label | | Control Solution Unit-Code. Use default mg/dL – variable format observation | | |
| Coverage | Spec | [IEEE 11073-10417] | | |
| | Testable items | CtrlSol 6;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| Initial condition | | The simulated agent and the n standard configuration. | nanager under test are in the op | erating state using the |
| Test procedure | | | e format event report using a me s until it receives a confirmation. | asurement in mg/dL. |
| Pass/Fail criteria | | to the observation (e.g. if | nder test is able to accept the da there is a UI, verify that the mea they are converted to a differen | surement and date are |
| 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 | Ctrl | Sol 6;M | | |
|--------------------|-------------------|---|---|--|--|
| | Spec | [ΙΤΙ | J-T H.810] | | |
| | Testable items | Cor | nmunication 9; M | | |
| Applicability | | C_1 | MAN_OXP_000 AND C_M | AN_OXP_019 AND C_MAN_G | L_002 |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | |
| Test procedu | ure | 1. | | e format event report to set the _PER_L (4722) for handle 2 (Co | |
| | | 2. | The simulated agent waits | s until it receives a confirmation | |
| | | 3. | | variable format event report wi nit the unit-code attribute in the | |
| | | 4. | The simulated agent waits | s until it receives a confirmation | |
| | | 5. | The simulated agent send | ls an association release reque | st (normal). |
| | | 6. | The simulated agent waits | s until it receives an association | release response. |
| | | 7. | The simulated agent send was used initially. | ls an association request using | the same configuration that |
| | | 8. | If the manager under test unknown-config", then | responds with association requ | est response with "accepted- |
| | | | • The simulated agent standard configuration | sends the confirmed configurat n. | ion event report with the |
| | | | • The simulated agent configuration event re | waits until it receives a confirmate port just sent. | ation from the confirmed |
| | | 9. | | | port with an observation in the unit-code attribute it should |
| | | 10. | The simulated agent waits | s until it receives a confirmation | |
| Pass/Fail criteria | | • | and applies mmol/L to the | at the manager under test is ab observations (e.g. if there is a operly even if they are converte | UI, verify that the measurement |
| | | • | applies mg/dL to the obse | manager under test is able to a rvation (e.g. if there is a UI, ver ly even if they are converted to | ify that the measurement and |
| 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN | _OXP_019 | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration 1701. | | erating state using the |

| Test procedure | 1. | 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 | Thi | s 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 | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_019 | |
| 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]). | |
| | | 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-026 | | |
|--------------------|-------------------|---|--|--|
| TP label | | Special values. Not at this resolution – fixed format (Std Config 1701) | | |
| Coverage | Spec | [IEEE 11073-10417] | | |
| | Testable items | CtrlSol 8; M | | |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| 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 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. |
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|--|

| TP ld | | 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 | | |
| 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 ld | | 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 | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_019 | |
| 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 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 | | | | | | |
|--------------------|-------------------|---|--|--|----|--|--|--|
| Applicability | | C_MAN_OXP_000 A | AND C_MAN_OXP_019 | | | | | |
| Initial condit | ion | Ŭ | The simulated agent and the manager under test are in the operating state using the standard configuration 1701. | | | | | |
| Test procedı | ure | Solution Object) | | ariable event report for handle 2 (Control r value set to the value for positive infinity 1 - 2) = 0x07FE]). | | | | |
| | | 2. The simulated a | gent waits until it receives | a confirmation from the manager under test | t. | | | |
| 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 be | een considered as an impli | licit test case. | | | | |

| TP ld TP label | | TP/PLT/MAN/CLASS/GL/BV-030 Special values. Negative infinity – fixed format (Std Config 1701) | | | | | |
|--------------------|-------------------|--|--|--|--|--|--|
| | | | | | | | |
| | Testable items | CtrlSol 8; M | | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | | |
| 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 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. | | | | | |
| 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/PLT/MAN/CLASS/GL/BV-031 | | | | | |
|-------------------|-------------------|---|--|--|--|--|--|
| | | Special values. Negative infinity – variable format (Std Config 1701) | | | | | |
| Coverage | Spec | [IEEE 11073-10417] | | | | | |
| | Testable items | CtrlSol 12; M | | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | | |
| 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 (Contro Solution Object) containing an observation value set to the value for negative infin (–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 label | | TP/PLT/MAN/CLASS/GL/BV-032 | | | | |
|--------------------|-------------------|--|--|--|--|--|
| | | Special values. Reserved – fixed format (Std Config 1701) | | | | |
| Coverage | Spec | [IEEE 11073-10417] | | | | |
| | Testable items | CtrlSol 8; M | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration 1701. | | | | |
| Test proced | dure | 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. | | | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/GL/BV-033 Special values. Reserved – variable format (Std Config 1701) | | | | | |
|--------------------|-------------------|--|--|--|--|--|--|
| | | | | | | | |
| | Testable items | CtrlSol 12; M | | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_019 | | | | | |
| Initial cond | ition | The simulated agent and the manager under test are in the operating state using the standard configuration 1701. | | | | | |
| Test proced | lure | 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. | | | | | |

| TP ld | | TP/PLT/MAN/CLASS/PO/BV-003 | | | | | | |
|----------------|-------------------|----------------------------------|---|---|------------------------------|--|--|--|
| TP label | | Association procedure Manager PO | | | | | | |
| Coverage | Spec | [ISO/IEE | [ISO/IEEE 11073-10404] | | | | | |
| | Testable items | | socResp 1;M | PulseAssocResp 2;M | PulseAssocResp 5;M | | | |
| | Items | PulseAs | socResp 6;M | PulseAssocResp 7;M | PulseAssocResp 8;M | | | |
| | | PulseAs | socResp 9;M | PulseAssocResp 10;M | PulseAssocResp 11;M | | | |
| Applicability | , | C_MAN | _OXP_000 AND C_MA | AN_OXP_026 | | | | |
| Initial condit | tion | The ma | nager is in the unasso | ciated state. | | | | |
| Test proced | ure | 1. The field | ds: protocol-version | s an association request to the = '1000000000000000000000000000000000000 | - | | | |
| | | | nomenclature-ve | rsion = '1000000000000000000 | 00000000000000'B | | | |
| | | | | 000000000000000000000000000000000000000 | | | | |
| | | | | 000000100000000000000000000000000000000 | 0000000'B | | | |
| | | | dev-config-id = 1 | | | | | |
| | | | data-rep-mode-c data reg model | apab = ode_flags= '000000000000000 | 110 | | | |
| | | | - | t_agent_count = 1 | | | | |
| | | | - | t_manager_count =0 | | | | |
| | | | option-list.length: | - | | | | |
| | | 2. The | | ends an association response. | The fields of interest are: | | | |
| | | a. | APDU Type | | | | | |
| | | | □ field-length = 2 b | ytes | | | | |
| | | | □ field-value = 0xE | 3 0x00 (AareApdu) | | | | |
| | | b. | Result | | | | | |
| | | | □ field- type = Asso | ociateResult | | | | |
| | | | $\Box \text{field-length} = 2 \text{ b}$ | - | | | | |
| | | | □ field-value = One | - | 0.00 | | | |
| | | | | n is accepted, field-value=0x00 n is rejected-permanent, field-v | | | | |
| | | | | n is rejected-transient, field-val | | | | |
| | | | | n is accepted-unknown-config, | | | | |
| | | | | n is rejected-no-common-proto | | | | |
| | | | | n is rejected-no-common-parar | | | | |
| | | | If association | n is rejected–unknown = 0x00 | 0x06. | | | |
| | | | If association | n is rejected-unauthorized, field | l-value=0x00 0x07. | | | |
| | | | If association 0x08. | n is rejected-unsupported-asso | oc-version, field-value=0x00 | | | |

A.4 Subgroup 2.3.3: Pulse oximeter (PO)

| 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 = 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 |
|--------------------|--|
| | $\Box \text{field-length} = = 1 \text{ byte}$ |
| | $\Box \text{field-value} = 0x00$ |
| | n. data-req-init-manager-count (DataReqModeCapab) |
| | □ field- type = INT-U8 |
| | $\Box \text{field-length} = = 1 \text{ byte}$ |
| | $\Box field-value = 0x00$ |
| 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/PO/BV-004 | | | | |
|----------------|-------------------|---|--|--|--|--|
| TP label | | Confi | figuration Event Report. Pulse Oximeter standard configuration 400 | | | |
| Coverage | Spec | [ISO/ | D/IEEE 11073-20601A] | | | |
| | Testable items | Confl | fEventRep 18;M | | | |
| Applicability | | C_M/ | IAN_OXP_000 AND C_MAN_OXP_026 | | | |
| Initial condit | ion | The s | The simulated agent and the manager under test are in an unassociated state | | | |
| Test procedu | ıre | | The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x01 0x90 (PulseOximeter). | | | |
| | | 2. T | The manager under test responds with an association response, the field of interest is: | | | |
| | | a | 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" | | | | |
| | | The simulated agent sends a configuration event report with config-report-id set to 0 0x90. | | | | |
| | | 4. T | The manager under test must respond with: | | | |
| | | a | a. APDU Type | | | |
| | | | □ field-length =2 bytes | | | |
| | | | □ field-value =0xE7 0x00 (PrstAdpu) | | | |
| | | b | 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 | c. Obj-Handle: | | | |
| | | | □ field- type = HANDLE | | | |
| | | | □ field-length =2 bytes | | | |
| | | | □ field-value = 0x00 0x00 | | | |
| | | c | d. Event-time: | | | |
| | | | □ field- type = INT-U32 | | | |

| | 1 | | |
|--------------------|----------------|---------|---|
| | | | 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 | 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 mea | asurement is correctly presented. |
| Notes | See <u>htt</u> | p://co | ntinua.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 | [IS | SO/IEEE 11073-20601A] | | | | | |
| | Testable items | Co | onfEventRep 18;M | | | | | |
| Applicability | , | C_ | MAN_O | DXP_000 AND C_MAN_OXP_026 | | | | |
| Initial condit | tion | The | e simula | ated agent and the manager under test are in an unassociated state. | | | | |
| Test procedure | | 1. | | imulated agent test sends an association request to the manager under test with onfig-id set to 0x01 0x91 (PulseOximeter). | h | | | |
| | | 2. | 2. The manager under test responds with an association response, the field of interest is: | | | | | |
| | | | a. Result i field- type = INT-U16 | | | | | |
| | | | | | | | | |
| | | | □ field-length =2 bytes | | | | | |
| | | | | i field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config) |) | | | |
| | | lf tł | f 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 0x91. | | :01 | | | |
| | | | The m | nanager under test must respond with: | | | | |
| | | | a. A | PDU Type | | | | |
| | | | | i field-length =2 bytes | | | | |
| | | | | i field-value =0xE7 0x00 (PrstAdpu) | | | | |
| | | | b. In | ivoke-id | | | | |
| | | | | i field- type = INT-U16 | | | | |
| | | | | i field-length =2 bytes | | | | |

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

| 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 | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | |
| 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 | | | |
| | | <pre>Length = 5080 ObservationScan ::= { obj-handle: 1 (SPO2) attributes: AttributeList ::= { AVA-Type ::= { attribute-id: 61441</pre> | | | |

| | 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 | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | |
| Initial condit | ion | 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] | | |
| | Testable items | Communication 9; M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
| Initial condition | | 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
| Initial condition | | 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. | | |
| | | 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 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 | | TP/PLT/MAN/CLASS/PO/BV-010 |
|--|--|---|
| TP label Supplemental-Type: Pulse Rate— Standard configuration 0x191 | | Supplemental-Type: Pulse Rate— Standard configuration 0x191 |
| Coverage Spec | | [ISO/IEEE 11073-10404] |

| | Testable items | PulseRateStandConf 1;C | | |
|--|-------------------|--|--|--|
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
| Initial condit | tion | 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. | | |
| the correct bytes to the correct attributes and Supplemental-Type for Object with ha | | 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 | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | |
| 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 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/PO/BV-012 | | | |
|-------------------|-------------------|---|----------------------------------|---|--|
| TP label | | Special values. Not a number – variable format | | | |
| Coverage | Spec | [ISO/IEEE 11073-10404] | | | |
| | Testable items | SpO2NumObjAttr 16; C | PulseRateNumObjAttr 33; C | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | |
| 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 send | s a confirmed variable event rep | port 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 ld | | 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 | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | |
| 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 ld | | TP/PLT/MAN/CLASS/PO/BV-014 | | |
|--------------------|-------------------|---|--|--|
| TP label | | Special values. Not at this resolution – variable format | | |
| Coverage | Spec | [ISO/IEEE 11073-10404] | | |
| | Testable items | SpO2NumObjAttr 16; C PulseRateNumObjAttr 33; C | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
| 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 Testable items | | [ISO/IEEE 11073-10404] | | | |
| | | SpO2NumObjAttr 11; M | PulseRateNumObjAttr 28; M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_M | IAN_OXP_026 | | |
| Initial cond | ition | 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 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 cons | idered as an implicit test case. | | |

| TP ld | | TP/PLT/MAN/CLASS/PO/BV-016 | | | | |
|--------------------|-------|--|---|--|--|--|
| TP label | | Special values. Positive infinity – variable format | Special values. Positive infinity – variable format | | | |
| Coverage | Spec | [ISO/IEEE 11073-10404] | | | | |
| Testable items | | SpO2NumObjAttr 16; C PulseRateNumObjAttr 33; C | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_026 | | | | |
| Initial cond | ition | 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 infinit | y – fixed format | |
| Coverage | Spec | [ISO/IEEE 11073-10404] | | |
| | Testable items | SpO2NumObjAttr 11; M | PulseRateNumObjAttr 28; M | |

| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
|--------------------|---|--|--|
| 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 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/PO/BV-018 | | |
|--------------------|-------------------|--|--------------------------------|--|
| TP label | | Special values. Negative infinity | v – variable format | |
| Coverage | Spec | [ISO/IEEE 11073-10404] | | |
| | Testable items | SpO2NumObjAttr 16; C | PulseRateNumObjAttr 33; C | |
| Applicability | y | C_MAN_OXP_000 AND C_MA | N_OXP_026 | |
| Initial condi | 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 (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 conside | ered as an implicit test case. | |

| TP ld | | TP/PLT/MAN/CLASS/PO/BV-019 | | |
|------------------------------------|---|--|---------------------------|--|
| TP label | | Special values. Reserved – fixed format | | |
| Coverage Spec Testable items | | [ISO/IEEE 11073-10404] | | |
| | | SpO2NumObjAttr 11; M | PulseRateNumObjAttr 28; M | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_026 | | |
| 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 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/PO/BV-020 | | | | |
|--------------------|-------------------|--|--|--|--|--|
| TP label | | Special values. Reserved – | Special values. Reserved – variable format | | | |
| Coverage Spec | | [ISO/IEEE 11073-10404] | | | | |
| | Testable items | SpO2NumObjAttr 16; C | PulseRateNumObjAttr 33; C | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_ | MAN_OXP_026 | | | |
| 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 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 con | sidered 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 11073-10407] | | | |
| | 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 | | | |
| Applicability | | C_MAN_OXP_000 AND (| MAN OXP 020 | | |
| Initial conditi | ion | The manager is in the una | | | |
| | | | | | |
| Test procedu | ire | 1. The simulated agent fields: | sends an association reques | st to the manager under test, with the | |
| | | D protocol-vers | sion = '10000000000000000 | 00000000000000000000000000000000000000 | |
| | | encoding-rules= '10000000000000'B | | | |
| | | nomenclature-version = '100000000000000000000000000000000'B | | | |
| | | □ functional-units = '00000000000000000000000000000000000 | | | |
| | | □ system-type = '000000010000000000000000000000000000 | | | |
| | | □ dev-config-id = 16437 | | | |
| | | data-rep-mode-capab = | | | |
| | | data_req_mode_flags= '0000000000001'B | | | |
| | | data_re | q_init_agent_count = 1 | | |
| | | data_re | q_init_manager_count =0 | | |
| | | option-list.le | ngth=0 | | |
| | | 2. The manager under to | est sends an association res | sponse. The fields of interest are: | |
| | | a. APDU Type | | | |
| | | field-length = | = 2 bytes | | |
| | | field-value = | 0xE3 0x00 (AareApdu) | | |
| | | b. Result | | | |
| | | □ field- type = | AssociateResult | | |
| | | field-length = | - | | |
| | | □ field-value = One of the following: | | | |
| | | If assoc | iation is accepted, field-valu | e=0x00 0x00. | |
| | | | iation is rejected-permanent | | |
| | | | iation is rejected-transient, f | | |
| | | | - | config, field-value=0x00 0x03. | |
| | | | - | n-protocol, field-value=0x00 0x04. | |
| | | | - | n-parameter, field-value=0x00 0x05. | |
| | | If assoc | iation 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. |
| С. | 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 |
| | $\Box \text{field-length} = 4 \text{ bytes (BITS-32)}$ |
| | □ 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 |
| | $\Box field-length = 8 \text{ bytes}$ |
| | □ 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 |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field- type = INT-U8 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| Pass/Fail criteria | All chec | ked values are as specified in the test procedure. |
| Notes | Value fo | r protocol-version has been modified according to [ISO/IEEE 11073-20601A]. |

| | | 1 | | | |
|----------------|-------------------|---|---------------|--------|---|
| 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 | MC | MDSEvents 8;M | | |
| | Spec | [IS | O/IEE | EE 1 | 1073-20601A] |
| | Testable items | Co | nfEve | entR | ep 18;M |
| Applicability | | C_ | MAN | _ox | P_000 AND C_MAN_OXP_020 |
| Initial condit | ion | The | e sim | ulate | ed 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 0x02 0xBC (Blood Pressure Meter). | | | |
| | | 2. | The | ma | 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) |
| | | lf th | ne res | sult o | of the association response was "accepted-unknown-config" |
| | | 3. | The 0xB | | ulated agent sends a configuration event report with config-report-id set to 0x02 |
| | | 4. | The | ma | nager under test must respond with: |
| | | | a. | API | 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-Handle: |
|--------------------|---------|---|
| | | □ field- type = HANDLE |
| | | □ field-length =2 bytes |
| | | $\Box field-value = 0x00 \ 0x00$ |
| | 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 with: |
| | | <pre>event_type = MDC_NOTI_SCAN_REPORT_FIXED</pre> |
| | | <pre>event_info = ScanReportInfoFixed</pre> |
| | | obs_scan_fixed: Sys-Diast-MAP 120-90-100 mmHg and pulse rate 60 beats/min |
| Pass/Fail criteria | | e 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 | See bug | g http://continua.plugfests.com/show_bug.cgi?id=123 |

| TP ld | | TP/PLT/MAN/CLASS/BPM/BV-003 | | | |
|----------------|-------------------|--|--|--|--|
| TP label | | Attribute-Value-Map. Order change. | | | |
| Coverage | Spec | [ISO/IEEE 11073-10407] | | | |
| | Testable items | SystDiast_23;M | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | |
| Initial cond | ition | 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 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. | | | |
| | | 3. The simulated agent sends a confirmed variable event report to change the Attribute- Value-Map configuration of handle 1 to reverse the values to: | | | |

| | MDC_ATTR_TIME_STAMP_ABS, then MDC_ MDC_ATTR_NU_CMPD_VAL_OBS_BASIC and to reverse handle 2 values to: MDC_ATTR_TIME_STAMP_ABS, MDC_ATTR_NU_ VAL_OBS_BASIC. |
|--------------------|--|
| | 4. The simulated agent waits until it receives a confirmation. |
| | Send a confirmed fixed format event report with handle 1 values set to the date first followed by blood pressure values (in millimetres of mercury (MDC_DIM_MMHG) since it is the standard configuration unit code) and handle 2 values set to the date first followed by pulse rate (in beats per minute (MDC_DIM_BEAT_PER_MIN)). |
| | 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. |
| | The simulated agent sends a fixed event report for handles 1 and 2 following the standard configuration attribute-value-format (MDC_ATTR_NU_CMPD_VAL_OBS_BASIC, MDC_ATTR_TIME_STAMP_ABS) and (MDC_ATTR_NU_ VAL_OBS_BASIC, MDC_ATTR_TIME_STAMP_ABS), respectively. |
| | 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 Id TP label | | TP/PLT/MAN/CLASS/BPM/BV-004 Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map | | |
|-------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | SystDiast_23;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001 | | |
| 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 | 1. | 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 ld | | 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] | | | |
| | Testable items | Communication 9; M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001 | | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | |
| Test procedure | | of handle 1 (non-invasiv MDC_DIM_KILO_PAS(| ends a confirmed variable event re ve blood pressure) to kPa nomenc CAL (3843). ange handle 2 (pulse), since the o | lature code | |
| | | 2. The simulated agent waits until it receives a confirmation. | | | |
| | | 3. 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. | | wed by date and time stamp | |
| | | 4. The simulated agent waits until it receives a confirmation. | | | |
| | | 5. The simulated agent se | ends an association release reques | st (normal). | |

| | 1 | |
|--------------------|--|--|
| | 6. | The simulated agent waits until it receives an association release response. |
| | 7. The simulated agent sends an association request using the same configuration 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 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 | | | |
| Applicability | у | C_MAN_OXP_000 AND C_MAN_OXP_020 AND (NOT(C_MAN_BPM_001)) | | | |
| Initial condi | 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 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. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. | | | |
| | | 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. | | | |
| | | 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 cr | iteria | • 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 label | | TP/PLT/MAN/CLASS/BPM/BV-006 | | | |
|--------------------|-------------------|---|---|-------------------------------|--|
| | | 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 | | | |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | |
| Initial condi | tion | 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 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 | | and beats/min to the obse | nder test is able to accept the da rvations (e.g. if there is a UI, ve ly even if they are converted to a | rify that the measurement and | |
| Notes | | | | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/BPM/BV-007 | | | | |
|-------------------|-------------------|--|--|--|--|--|
| | | Unit-Code. Change from default millimetres of mercury (mmHg) to kilopascals (kPa) – variable format observation. | | | | |
| Coverage Spec | | [ISO/IEEE 11073-10407] | | | | |
| | Testable items | SystDiast_21;M | | | | |
| | Spec | [ITU-T H.810] | | | | |
| | Testable items | Communication 9; M | | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_020 AND C_MAN_BPM_001 | | | | |
| 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. | | | | |

| | 1 | |
|--------------------|-----|---|
| | 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_020 | | |
| 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 Id TP label | | TP/PLT/MAN/CLASS/BPM/BV-009 | | |
|--------------------|-------------------|--|--|--|
| | | Metric-id-list. Id order change – fixed format | | |
| Coverage | Spec | [ISO/IEEE 11073-10407] | | |
| | Testable items | SystDiast_17;M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_020 | | |
| 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_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 criteria | | 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 Id TP label | | TP/PLT/MAN/CLASS/BPM/BV-010 | | |
|--------------------|-------------------|--|--|--|
| | | Metric-id-list. Id order change – variable format | | |
| Coverage Spec | | [ISO/IEEE 11073-10407] | | |
| | Testable items | SystDiast_17;M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_020 | | |
| 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_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 | | | | |
| Applicability | | C_MAN_OXP_000 AND C | C_MAN_OXP_020 | | | |
| 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_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}. | | | | |
| | | | sends a confirmed fixed event rep compound field values (SFLOAT) | | | |
| | | 3. The simulated agent | waits until it receives a confirmation | on 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 | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | |
| 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} 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 | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_020 | | |
| Initial condition | | The manager under test is in the operating state. | | |
| Applicability Initial condition Test procedure Pass/Fail criteria | | The simulated agent sends a Confirmed variable event report: a. ScanReportInfoVar. obs_scan_var: | | |
| | | • 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | |
| 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 (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 ld | | TP/PLT/MAN/CLASS/BPM/BV-015 | | | | |
|--------------------|------------------------------------|--|--|--|--|--|
| TP label | | Special values. Not a numb | Special values. Not a number – variable format | | | |
| Coverage | verage Spec [ISO/IEEE 11073-10407] | | | | | |
| | Testable items | SystDiast_45; C | PulsRat_42; M | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | | |
| 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 (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 label | | TP/PLT/MAN/CLASS/BPM/BV-016 | | | |
|--------------------------------------|-------------------|--|--|--|--|
| | | Special values. Not at this resolution – fixed format | | | |
| Coverage Spec [ISO/IEEE 11073-10407] | | | | | |
| | Testable items | SystDiast_23; M PulsRat_22; M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | |
| 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 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate) containing all observation values 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/BPM/BV-017 | | | | | |
|--------------------|------|---|------------------------------|--|--|--|--|
| TP label | | Special values. Not at this | resolution – variable format | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10407] | | | | | |
| Testable items | | SystDiast_45; C | PulsRat_42; M | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C | _MAN_OXP_020 | | | | |
| 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 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values 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/BPM/BV-018 | | | | | |
|--------------------|-------------------|--|-------------------------|--|--|--|--|
| TP label | | Special values. Positive | infinity – fixed format | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10407 |] | | | | |
| | Testable items | SystDiast_23; M | PulsRat_22; M | | | | |
| Applicabilit | У | C_MAN_OXP_000 AND | C_MAN_OXP_020 | | | | |
| 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 (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 ld | | TP/PLT/MAN/CLASS/BPM/BV-019 | | | | | |
|--------------------|------|--|-----------------------------------|-------|--|--|--|
| TP label | | Special values. Positive | infinity – variable format | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10407] |] | | | | |
| Testable items | | SystDiast_45; C | PulsRat_42; M | | | | |
| Applicabilit | У | C_MAN_OXP_000 AND | C_MAN_OXP_020 | | | | |
| 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 (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 of | case. | | | |

| TP ld | | TP/PLT/MAN/CLASS/BPM/BV-020 | | | | | |
|--------------------|------|--|----------------------------|--|--|--|--|
| TP label | | Special values. Negativ | ve infinity – fixed format | | | | |
| Coverage | Spec | [ISO/IEEE 11073-1040 |] | | | | |
| Testable items | | SystDiast_23; M | PulsRat_22; M | | | | |
| Applicabilit | y | C_MAN_OXP_000 AN | D C_MAN_OXP_020 | | | | |
| 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 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate Object) containing all observation values 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/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 | | | |

| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_020 |
|--------------------|--|
| 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 (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 11073-10407] | | | | | |
| | Testable items | SystDiast_23; M PulsRat_22; M | | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_I | MAN_OXP_020 | | | | |
| 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 (Systolic/Diastolic/MAP Object) and handle 2 (Pulse Rate) containing all observation values 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. | | | | | |
| 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/BPM/BV-023 | | | | | | |
|-------------------|-------------------|---|--|--|--|--|--|--|
| TP label | | Special values. Reserve | Special values. Reserved – variable format | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-1040] | [ISO/IEEE 11073-10407] | | | | | |
| | Testable items | SystDiast_45; C | PulsRat_42; M | | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_020 | | | | | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | | | | |
| Test procedure | | (Systolic/Diastolic/ | | e event report for handle 1 Pulse Rate Object) containing all (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 label | | TP/PLT/MAN/CLASS/TH/BV-003 | | | | | | |
|-------------------|----------|----------------------------------|------|--------|--|---|--|--|
| | | Association procedure Manager TH | | | | | | |
| Coverage | Spec | [ISO | O/IE | EE 11 | 073-10408] | | | |
| | Testable | TH | _ CN | /I_Ass | soc10 ;M | TH_ CM_Assoc14 ;M | TH_ CM_Assoc15 ;M | |
| | items | TH | _ CN | /L_Ass | soc16 ;M | TH_ CM_Assoc17 ;M | TH_ CM_Assoc18 ;M | |
| | | TH | _ CN | /L_Ass | soc19 ;M | TH_ CM_Assoc20 ;M | | |
| Applicability | / | C_I | MAN | I_OXI | P_000 AND C_MA | AN_OXP_025 | | |
| nitial condi | | | | | r is in the unassoc | | | |
| Test proced | ure | 1. | | e sim | | | the manager under test, with the | |
| | | | | | protocol-version | = '10000000000000000000 | 0000000000000'B | |
| | | | | | encoding-rules= | '1000000000000000'B | | |
| | | | | | nomenclature-ve | rsion = '100000000000000 | 000000000000000000000'B | |
| | | | | | functional-units = | : '000000000000000000 | 00000000000000000000000000000000000000 | |
| | | | | | system-type = '00 | 000000100000000000000000000000000000000 | 000000000'B | |
| | | | | | | | | |
| | | | | | data-rep-mode-c | apab = | | |
| | | | | | data_req_monormal | ode_flags= '000000000000 | 0001'B | |
| | | | | | data_req_ini | t_agent_count = 1 | | |
| | | | | | data_req_ini | t_manager_count =0 | | |
| | | | | | option-list.length= | =0 | | |
| | | 2. | The | e mar | nager under test s | ends an association respor | nse. The fields of interest are: | |
| | | | a. | APE | ОU Туре | | | |
| | | | | | field-length = $2 b$ | ytes | | |
| | | | | | field-value = 0xE | 3 0x00 (AareApdu) | | |
| | | | b. | Res | ult | | | |
| | | | | | field- type = Asso | ociateResult | | |
| | | | | | field-length = $2 b_{1}$ | ytes | | |
| | | | | | field-value = One | of the following: | | |
| | | | | | If association | n is accepted, field-value=0 | x00 0x00. | |
| | | | | | If association | n is rejected-permanent, fie | ld-value=0x00 0x01. | |
| | | | | | If association | n is rejected-transient, field- | value=0x00 0x02. | |
| | | | | | If association | n is accepted-unknown-con | fig, field-value=0x00 0x03. | |
| | | | | | If association | n is rejected-no-common-pr | otocol, field-value=0x00 0x04. | |
| | | | | | If association | n is rejected-no-common-pa | arameter, field-value=0x00 0x05. | |
| | | | | | If association | n is rejected–unknown = 0x | 00 0x06. | |
| | | | | | If association | n is rejected-unauthorized, | field-value=0x00 0x07. | |
| | | | | | If association 0x08. | n is rejected–unsupported-a | assoc-version, field-value=0x00 | |
| | | | c. | مواد | | DataProto: sequence of dat | a-proto-id (DataProtold) and data | |

| | proto info(defined by data proto id)) | |
|----|--|--|
| | 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) | |
| | G 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) | |
| ١. | data-req-mode-flags (DataReqModeCapab) | |
| | field- type = DataReqModeFlags | |
| | □ field-length = 2 bytes | |
| | $\Box field-value = 0x00 \ 0x00$ | |
| | manager response to data-req-mode-flags is always 0. | |
| m. | data-req-init-agent-count (DataReqModeCapab) | |
| | □ field- type = INT-U8 | |
| | | |

| | $\Box field-length = = 1 byte$ | |
|--------------------|--|--|
| | $\Box field-value = 0x00$ | |
| | n. data-req-init-manager-count (DataReqModeCapab) | |
| | □ field- type = INT-U8 | |
| | $\Box field-length = = 1 byte$ | |
| | $\Box field-value = 0x00$ | |
| 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/TH/BV-004 | | | | | |
|----------------|-------------------|--|---------------------------------|------|-----------------------------|---------------------------------|----------------------------------|
| TP label | | Configuration Event Report. Thermometer standard configuration | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | | |
| | Testable items | Со | ConfEventRep 18;M | | | | |
| Applicability | , | C_I | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | | |
| Initial condit | 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 0x03 0x20 (Thermometer). | | | | | |
| | | 2. | The | e ma | nager under test re | esponds with an association res | ponse, the field of interest is: |
| | | | a. | Res | sult | | |
| | | | | | field- type = INT- | U16 | |
| | | | | | field-length =2 by | rtes | |
| | | | | | field-value = 0x00 | 0 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 0x03 0x20. | | | | | |
| | | 4. | The | ma | nager under test m | nust respond with: | |
| | | | a. | API | ОU Туре | | |
| | | | | | field-length =2 by | rtes | |
| | | | | | field-value =0xE7 | ′ 0x00 (PrstAdpu) | |
| | | | b. | Invo | oke-id | | |
| | | | | | field- type = INT- | U16 | |
| | | | | | field-length =2 by | tes | |
| | | | | | field-value= it mu message. | st be the same as the invoke-id | of the simulated agent's |
| | | | c. | Obj | -Handle: | | |
| | | | | | field- type = HAN | DLE | |
| | | | | | field-length =2 by | tes | |
| | | | | | field-value = 0x00 | 0x00 | |
| | | | d. | Eve | ent-time: | | |
| | | | | | field- type = INT- | U32 | |
| | | | | | field-length =4 by | tes | |

| Notes | |
|--------------------|--|
| | The measurement is correctly presented. |
| 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". |
| | 5. The simulated agent sends a fixed event report with one measurement. |
| | Wait until the operating state is reached in both cases. |
| | accepted-config: 0x00 0x00 |
| | ConfigReportRsp.config-result: One of: |
| | ConfigReportRsp.config-report-id: it must be the same as config-report-id of the simulated agent's message |
| | Event-replay-info.length (2 bytes) |
| | f. The following six bytes indicate: |
| | field-value= MDC_NOTI_CONFIG |
| | $\Box field-length = 2 \text{ bytes}$ |
| | e. Event-type: |
| | □ field-value: 0xXX 0xXX |

| 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 | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | |
| Initial condit | lion | The manager under test is in the operating state. | | | |
| Initial condition Test procedure | | <pre>1. 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(832 bytes) 00'0 }</pre> | | | |

| | 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 | |

Г

| 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 | | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | | |
| 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 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. | | | | |
| | | 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. | | | | |
| | | 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 Celsius degrees body temperature 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, verif that the measurement and date are displayed properly). | | | | |

| | In steps 2, 6 and 12 verify that the manager under test uses Celsius degrees 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/TH/BV-007 | | | | |
|----------------|-------------------|---|---|--|--------------------------------|--|
| TP label | TP label | | Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map | | | |
| Coverage | Spec | [IS0 | D/IEEE 11073-10408] | | | |
| | Testable items | Nu | n Objec Temp17;M | | | |
| Applicability | , | C_I | C_MAN_OXP_000 AND C_MAN_OXP_025 AND C_MAN_TH_001 | | | |
| Initial condit | lion | 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 proced | 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. | | | | |
| | | 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 cri | teria | • | | anager under test is able to acc o the correct attributes (e.g. if th e 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 code for the measurement | t the manager under test uses reports. | Fahrenheit degrees as the unit | |
| Notes | | | | | | |

| TP ld | | TP/PLT/MAN/CLASS/TH/BV-008 |
|---------------|--|--|
| TP label | | Unit-Code. Change from default Celsius degrees to Fahrenheit degrees – fixed format observation. |
| Coverage Spec | | [ISO/IEEE 11073-10408] |

| | Testable items | Num | Objec Temp15;M | | | |
|--------------------|-------------------|--|--|------------------------|-------------------|---|
| | Spec | [ITU- | T H.810] | | | |
| | Testable items | Comr | munication 9; M | | | |
| Applicabilit | у | C_M/ | AN_OXP_000 AND C | _MAN_OXP_025 AN | ID C_MAN_TH | H_001 |
| Initial condi | ition | 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 variable event report to change the Unit-Code of handle 1 (Body Temperature Object) to Fahrenheit nomenclature code MDC_DIM_FAHR (4416). | | | | |
| | | 2. 1 | The simulated agent w | aits until it receives | a confirmation. | |
| | | | Send a confirmed fixed for a confirmed fixed for a confirmed by date and the confirmed by date a | | t using a meas | urement in Fahrenheit degrees |
| | | 4. 1 | The simulated agent w | aits until it receives | a confirmation. | |
| | | 5. The simulated agent sends an association release request (normal). | | | | |
| | | 6. 1 | The simulated agent w | aits 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 age configuration ever | | ives a confirma | ation from the confirmed |
| | | | The simulated agent s followed by date and t | | eport with an o | bservation in Celsius degrees |
| | | 10. 7 | The simulated agent w | aits 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). | | | | |
| | | r | applies Celsius degree | s to the observation | (e.g. if there is | ccept the data properly and s a UI, verify that the sy are converted to a different |
| Notes | | | | | | |

| TP ld | | 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 | | |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_025 AND (NOT(C_MAN_TH_001)) | | |

| 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 Temperature Object) to Fahrenheit nomenclature code MDC_DIM_FAHR (4416). |
| | 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. |
| | 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 label | | TP/PLT/MAN/CLASS/TH/BV-009 | | | | |
|--------------------|-------------------|---|---|--------------------------------|--|--|
| | | Unit-Code. Use default Celsius degrees – variable format observation. | | | | |
| Coverage Spec | | [ISO/IEEE 11073-10408] | | | | |
| | Testable items | Num Objec Temp15;M | Communication 9; M | | | |
| | | | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | | |
| Initial cond | ition | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | | |
| Test proced | dure | 1. Send a confirmed variable format event report using a measurement in Celsius degrees. | | | | |
| | | 2. The simulated agent waits until it receives a confirmation. | | | | |
| Pass/Fail criteria | | Celsius degrees to the | er under test is able to accept the day observation (e.g. if there is a UI, ver perly even if they are converted to | erify that the measurement and | | |
| 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] |
|--------------------|-------------------|--|
| | Testable items | Communication 9; M |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_025 AND C_MAN_TH_001 |
| nitial conditi | on | The simulated agent and the manager under test are in the operating state using the standard configuration. |
| Test procedu | ire | 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). |
| Notes | | |

| 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 |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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 |

| | 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] | | [ISO/IEEE 11073-10408] |
| | Testable items | Num Objec Temp21; C |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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]). |
| | | 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-013 |
|--------------------|-------------------|---|
| TP label | | Special values. Not at this resolution – fixed format |
| Coverage | Spec | [ISO/IEEE 11073-10408] |
| | Testable items | Num Objec Temp17; M |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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 ld | | 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 |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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]). |
| | | 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-015 |
|--------------------|-------------------|---|
| TP label | | Special values. Positive infinity – fixed format |
| Coverage | Spec | [ISO/IEEE 11073-10408] |
| | Testable items | Num Objec Temp17; M |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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. |
| | | 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-016 |
|----------|-------------------|---|
| TP label | | Special values. Positive infinity – variable format |
| Coverage | Spec | [ISO/IEEE 11073-10408] |
| | Testable items | Num Objec Temp21; C |

| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_025 |
|--------------------|---|
| 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 ld | | 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 |
| Applicability | y | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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. |
| | | 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-018 |
|-------------------|-------------------|---|
| TP label | | Special values. Negative infinity – variable format |
| Coverage Spec | | [ISO/IEEE 11073-10408] |
| | Testable items | Num Objec Temp21; C |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_025 |
| 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 | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | |
| 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 | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_025 | | | |
| Initial cond | ition | 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. | | | |

| TP ld | | TP/PLT/MAN/CLASS/CV/B | | | N/CLASS/CV/BV-0 | 002 | |
|----------------|----------------------------------|---|-----|-------|------------------------------------|---|------------------------------------|
| TP label | Association procedure Manager CV | | | | | | |
| Coverage | Spec | [IEEE 11073-10441] | | | | | |
| | Testable | Ass | ocR | esp1 | ;M | AssocResp2;M | AssocResp3;M |
| | items | AssocResp4;M | | | | AssocResp5;M | AssocResp6;M |
| | | Ass | ocR | esp7 | ζ;Μ | AssocResp8;M | AssocResp9;M |
| | | Ass | ocR | esp1 | 0;M | AssocResp11;M | AssocResp12;M |
| Applicability | | C N | ЛAN | ox | P_000 AND (C_M | | |
| Initial condit | | | | | er is in the unasso | · · · | |
| Test procedu | | 1. | | e sim | ulated agent send | | o the manager under test, with the |
| | | | | | - | - 1000000000000000000000000000000000000 | 00000000000 B |
| | | | | | nomenclature-ve | rsion = '10000000000000 | 0000000000000000000000'B |
| | | □ functional-units = '00000000000000000000000000000000000 | | | | | |
| | | □ system-type = '00000000000000000000000000000000000 | | | | | |
| | | | | | dev-config-id = 1 | 6438 | |
| | | | | | data-rep-mode-c | apab = | |
| | | | | | data_req_m | ode_flags= '000000000000 | 00001'B |
| | | | | | data_req_ini | t_agent_count = 1 | |
| | | | | | data_req_ini | t_manager_count =0 | |
| | | | | | option-list.length | =0 | |
| | | 2. | The | e ma | nager under test s | ends an association respo | nse. The fields of interest are: |
| | | | a. | AP | DU Type | | |
| | | | | | field-length = 2 b | ytes | |
| | | | | | field-value = 0xE | 3 0x00 (AareApdu) | |
| | | | b. | Re | sult | | |
| | | | | | field- type = Asso | | |
| | | | | | field-length = 2 b | • | |
| | | | | | field-value = One | e of the following: | |
| | | | | | | n is accepted, field-value=0 | |
| | | | | | If association | n is rejected-permanent, fie | eld-value=0x00 0x01. |
| | | | | | | n is rejected-transient, field | |
| | | | | | If association | n is accepted-unknown-cor | nfig, field-value=0x00 0x03. |
| | | | | | If association | n is rejected-no-common-p | rotocol, field-value=0x00 0x04. |
| | | | | | | | arameter, field-value=0x00 0x05. |
| | | | | | If association | n is rejected–unknown = 0> | «00 0x06. |

A.7 Subgroup 2.3.6: Cardiovascular (CV)

If association is rejected-unauthorized, field-value=0x00 0x07.

•

•

| | 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 = 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 |
| | $\Box field-length = 8 \text{ bytes}$ |
| | □ field-value = (EUI-64 manufacturer and device) |
| k. | dev-config-id |
| | □ field- type = Configld |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ field-value = 0x00 0x00 (manager-config-response) |
| I. | data-req-mode-flags (DataReqModeCapab) |
| | field- type = DataReqModeFlags |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ 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 |
| | $\Box field-length = = 1 byte$ |
| | $\Box field-value = 0x00$ |
| | n. data-req-init-manager-count (DataReqModeCapab) |
| | □ field- type = INT-U8 |
| | $\Box field-length = = 1 byte$ |
| | □ 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/CV/BV-003 | | | | |
|--|---|--|--|--|--|--|
| TP label | P label Maximum APDU size: Cardiovascular | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | |
| | Testable items | CommonCharac 4;M | | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_023 AND NOT(C_MAN_CV_030) | | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | | |
| attribute-value: 1017 (MDC_HF_ACT_WALK) } } 2. Check the response of the manager under test. 3. The simulated agent sends a Confirmed fixed event report with one measurem | | <pre>a. ScanReportInfoVar. obs_scan_var: Count =2 Length = 64472 ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { attribute-value: '00(64448 bytes) 00'0</pre> | | | | |
| Pass/Fail cri | teria | • 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.8 | Subgroup 2.3.7: Strength (ST) | |
|------------|-------------------------------|--|
|------------|-------------------------------|--|

| TP label Association procedure Manager ST Coverage Spec [ISO/IEEE 11073-10442] Testable items StrenAssocRes 1;M StrenAssocRes 2;M StrenAssocRes StrenAssocRes 1;M StrenAssocRes 5;M StrenAssocRes Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 StrenAssocRes 11;M Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under the fields: protocol-version = '100000000000000000000000000000000000 | | | |
|---|---|--|--|
| Testable items StrenAssocRes 1;M StrenAssocRes 2;M StrenAssocRes StrenAssocRes 4;M StrenAssocRes 5;M StrenAssocRes Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under t fields: protocol-version = '100000000000000000000000000000000000 | | | |
| items StrenAssocRes 4;M StrenAssocRes 5;M StrenAssocRes StrenAssocRes 7;M StrenAssocRes 8;M StrenAssocRes Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 Initial condition The manager is in the unassociated state. Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under the fields: protocol-version = '100000000000000000000000000000000000 | | | |
| StrenAssocRes 4;M StrenAssocRes 5;M StrenAssocRes StrenAssocRes 7;M StrenAssocRes 8;M StrenAssocRes Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 Initial condition Test procedure The manager is in the unassociated state. Image: a condition of the test procedure of the test of the test procedure of test procedure of the test procedure of test procedu | 3;M | | |
| Image: StrenAssocRes 10;M StrenAssocRes 11;M Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under the fields: a protocol-version = '100000000000000000000000000000000000 | 3;M | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_022 Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under t fields: protocol-version = '100000000000000000000000000000000000 |);M | | |
| Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under the fields: protocol-version = '100000000000000000000000000000000000 | | | |
| Initial condition The manager is in the unassociated state. Test procedure 1. The simulated agent sends an association request to the manager under the fields: protocol-version = '100000000000000000000000000000000000 | | | |
| fields: protocol-version = '100000000000000000000000000000000000 | | | |
| protocol-version = '100000000000000000000000000000000000 | st, with the | | |
| nomenclature-version = '100000000000000000000000000000000000 | | | |
| functional-units = '00000000000000000000000000000000000 | | | |
| system-type = '000000010000000000000000000000000000 | 3 | | |
| dev-config-id = 16445 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 a. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field-type = AssociateResult field-length = 2 bytes | | | |
| 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 interational and a second test is an association response. The fields of interational and test is an association response. The fields of interational and test is an association response. The fields of interational and test is an association response. The fields of interational and test is an association response. The fields of interational and test is an association response. The fields of interational and test is an association response. The fields of interational and test is a second and test i | □ system-type = '000000001000000000000000000000000000 | | |
| 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 interational and a second | □ dev-config-id = 16445 | | |
| 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 interational and a second | | | |
| data_req_init_manager_count =0 option-list.length=0 2. The manager under test sends an association response. The fields of intera. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| option-list.length=0 2. The manager under test sends an association response. The fields of intera. a. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| 2. The manager under test sends an association response. The fields of intera. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| a. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | est are: | | |
| field-value = 0xE3 0x00 (AareApdu) b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| b. Result field- type = AssociateResult field-length = 2 bytes | | | |
| field- type = AssociateResult field-length = 2 bytes | | | |
| □ 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. | ~02 | | |
| If association is accepted-unknown-config, field-value=0x00 | | | |
| If association is rejected-no-common-protocol, field-value=0x If association is rejected no common parameter, field value | | | |
| If association is rejected-no-common-parameter, field-value= If association is rejected-upknown = 0x00 0x06 | 1XUU UXU5. | | |
| 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 = 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 |
| | $\Box \text{field-length} = 2 \text{ bytes (BITS-16)}$ |
| | 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 |
| | $\Box field-value = 0x00 \ 0x00$ |
| | manager response to data-req-mode-flags is always 0. |

| | m. data-req-init-agent-count (DataReqModeCapab) |
|--------------------|--|
| | □ field- type = INT-U8 |
| | $\Box field-length = = 1 byte$ |
| | □ field-value = 0x00 |
| | n. data-req-init-manager-count (DataReqModeCapab) |
| | □ field- type = INT-U8 |
| | $\Box field-length = = 1 byte$ |
| | □ 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 | CommonCharac 4;M | | | | | | |
| | items | | | | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MA | N_OXP_022 | | | | | |
| Initial conditi | ion | The manager under test is in the | ne operating state. | | | | | |
| Test procedu | ıre | 1. The simulated agent send | s a Confirmed variable event re | port: | | | | |
| | | a. ScanReportInfoVar. obs | s_scan_var: | | | | | |
| | | Count =2 | | | | | | |
| | | AVA-Type attribu attribu } ObservationSo obj-handle attributes AVA-Type attribu (MDC_ATTR_ENUM_OBS_V) attribu } } 2. Check the response of the | <pre>: 1 : AttributeList ::= { ::= { ute-id: 61441 ute-value: 00(64448 bytes). can ::= { : 1 : AttributeList ::= { ::= { ute-id: 2633 AL_SIMP_OID) ute-value: 284 (MDC_M e manager under test. s a Confirmed fixed event report </pre> | 00'O USC_HEAD_FACIAL) | | | | |

| 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 | AssocRe | sp1;M | AssocResp2;M | AssocResp3;M | | | |
| | items | AssocRe | sp4;M | AssocResp5;M | AssocResp6;M | | | |
| | | AssocRe | sp7;M | AssocResp8;M | AssocResp9;M | | | |
| | | AssocRe | sp10;M | AssocResp11;M | | | | |
| Applicability | , | C_MAN_OXP_000 AND (C_MAN_OXP_021) | | | | | | |
| Initial condit | ion | The man | ager is in the unasso | ociated state. | | | | |
| Test procedure | | fields | s: protocol-version | nds an association request n = '1000000000000000000 = '1000000000000000000'B | to the manager under test, with the | | | |
| | | 2. The a. b. | functional-units system-type = ' dev-config-id = data-rep-mode- data_req_r data_req_i data_req_i option-list.lengt manager under test APDU Type field-length = 2 field-value = 0x Result field-type = Ass field-length = 2 field-length = 2 field-length = 2 field-length = 0x Result If associati | <pre>capab = node_flags= '0000000000 nit_agent_count = 1 nit_manager_count =0 h=0 sends an association resp bytes E3 0x00 (AareApdu) sociateResult bytes ne of the following: on is accepted, field-value on is rejected-permanent, ion is rejected-transient, fie on is accepted-unknown-co on is rejected-no-common</pre> | 200000000000000 20000000000000 2000001'B 2000001'B 2000000000000'B 200000000000'B 200000000000'B 200000000000'B 200000000000'B 2000000000000'B 20000000000000'B 20000000000000'B 20000000000000'B 20000000000000'B 20000000000000'B 2000000000000'B 2000000000000'B 2000000000000'B 2000000000000'B 2000000000000'B 200000000000'B 200000000000'B 200000000000'B 200000000000'B 200000000000'B 200000000000'B 2000000000000'B 2000000000000'B 2000000000000'B 2000000000000'B 20000000000000'B 20000000000000 2000000000000 200000000 | | | |

| | 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 = DataProtold |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ 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 |
| | $\Box \text{field-length} = 4 \text{ bytes (BITS-32)}$ |
| | □ 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 |
| | $\Box field-length = 8 \text{ bytes}$ |
| | field-value = (EUI-64 manufacturer and device) |
| k. | dev-config-id |
| | □ field- type = Configld |
| | $\Box \text{field-length} = 2 \text{ bytes}$ |
| | □ field-value = 0x00 0x00 (manager-config-response) |
| I. | data-req-mode-flags (DataReqModeCapab) |
| | field- type = DataReqModeFlags |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ 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 | |
| | $\Box \text{field-length} = = 1 \text{ byte}$ | |
| | □ field-value = 0x00 | |
| | n. data-req-init-manager-count (DataReqModeCapab) | |
| | □ field- type = INT-U8 | |
| | $\Box \text{field-length} = = 1 \text{ byte}$ | |
| | □ 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 | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | | |
| | Testable items | CommonCharac 4;M | | | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_021 | | | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | | | |
| Test procedure | | <pre>1. 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 ::= {</pre> | | | | | |

| 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 ld | | TP/PLT/MAN/CLASS/AM/BV-000 | | | | | |
|----------------|-------------------|---|-------------------------|---|--|--|--|
| TP label | | Configuration Event Report. Adherence Monitor standard configuration 7200 | | | | | |
| Coverage | Spec | [IS | [ISO/IEEE 11073-20601A] | | | | |
| | Testable items | Co | ConfEventRep 18;M | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | | |
| Initial condit | ion | The | e sim | ulated agent and the manager under test are in an unassociated state. | | | |
| Test procedure | | 1. | | e simulated agent sends an association request to the manager under test with dev- fig-id set to 0x1c 0x20 (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) | | | |
| | | lf 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 0. | | | |
| | | 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: | | | |
| | | | | $\Box field-length = 2 \text{ bytes}$ | | | |
| | | | | □ 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: accented-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-001 | | | | |
|-----------------|-------------------|---|-----|--|------------------------------|--|
| TP label | | Configuration Event Report. Adherence Monitor standard configuration 7201 | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | |
| | Testable items | ConfEventRep 18;M | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | |
| 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 0x1c 0x21 (MedicalMonitor). | | | | |
| | | 2. | The | nager under test responds with an association respons | e, the field of interest is: | |
| | | | a. | sult | | |
| | | | | field- type = INT-U16 | | |
| | | | | field-length =2 bytes | | |
| | | | | field-value = 0x00 0x00 (accepted) or 0x00 0x03 (acc | | |
| | | 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 | | | | |
| | | 3. | 0x2 | ulated agent sends a configuration event report with co | onfig-report-id set to 0x1c | |
| | | 4. | The | nager under test must respond with: | | |
| | | | a. | DU Type | | |
| | | | | field-length =2 bytes | | |
| | | | | field-value =0xE7 0x00 (PrstAdpu) | | |
| | | | b. | oke-id | | |
| | | | | field- type = INT-U16 | | |
| | | | | field-length =2 bytes | | |
| | | | | field-value= it must be the same as the invoke-id of th message. | e simulated agent's | |
| | | | c. | -Handle: | | |
| | | | | field- type = HANDLE | | |
| | | | | field-length =2 bytes | | |
| | | | | field-value = 0x00 0x00 | | |
| | | | d. | ent-time: | | |
| | | | | field- type = INT-U32 | | |
| | | | | field-length =4 bytes | | |

| | □ field-value: 0xXX 0xXX |
|--------------------|--|
| | e. Event-type: |
| | $\Box field-length = 2 \text{ bytes}$ |
| | 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 Id | | TP/PLT/MAN/CLASS/AM/BV-002 | | | | | | |
|-------------------|-------------------|---|--|-------------------------|--------------------|----------------------------------|-----------------------------|--|
| | | | | | | | | |
| TP label | | Configuration Event Report. Adherence Monitor standard configuration 7202 | | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | | | |
| | Testable items | Co | | | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | | | |
| Initial condition | | | The simulated agent and the manager under test are in an unassociated state. | | | | | |
| Test procedure | | 1. The simulated agent sends an association request to the manager under test with dev- config-id set to 0x1c 0x22 (MedicalMonitor). | | | | | | |
| | | 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 | 0 0x00 (accepted) or 0x00 0x03 | 3 (accepted-unknown-config) | |
| | | If the result of the association response was "accepted-unknown-config" | | | | | wn-config" | |
| | | 3. The simulated agent sends a configuration event report with config-report-id set to 0x1c 0x22. | | | | | | |
| | | 4. The manager under test must respond with: | | | | | | |
| | | | a. APDU Type | | | | | |
| | | | | | field-length =2 by | vtes | | |
| | | | | | field-value =0xE7 | ′ 0x00 (PrstAdpu) | | |
| | | | b. | Inv | Invoke-id | | | |
| | | | | | field- type = INT- | U16 | | |
| | | | | | field-length =2 by | rtes | | |
| | | | | | field-value= it mu | ist be the same as the invoke-ic | d 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 un | til the operating state is reached in both cases. | |
| | 5. Th | 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 ccepted" message or to the Configuration Event Report with an "accepted-config". | |
| | The measurement is correctly presented. | | |
| Notes | The ma | anager can request Get MDS while they are in the associated state. | |

| TP Id TP label | | TP/PLT/MAN/CLASS/AM/BV-003 Configuration Event Report. Adherence Monitor standard configuration 7203 | | | |
|-------------------|-------------------|---|--|--|----------|
| | | | | | Coverage |
| | Testable items | ConfEventRep 18;M | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | |
| Initial cond | ition | The simulated agent and the manager under test are in an unassociated state. | | | |
| Test proced | dure | 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-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 0x1c 0x23. | | | |

| | 4. | Th | 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 |
| | | | $\Box field-value = 0x00 \ 0x00$ |
| | | d. | Event-time: |
| | | | □ field- type = INT-U32 |
| | | | □ field-length =4 bytes |
| | | | □ field-value: 0xXX 0xXX |
| | | e. | Event-type: |
| | | | $\Box field-length = 2 \text{ bytes}$ |
| | | | 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 | ait 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". |
| | • | The | e measurement is correctly presented. |
| Notes | ть | | 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 | | | | | |
| Coverage Spec | | [ISO/IEEE 11073-20601A] | | | |
| | Testable items | CommonCharac 4;M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | |
| 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 | | |
|--------------------|---|--|--|
| | \Box 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-Id: 2030 (MDC_ATTR_NO_VAL_OBS_BASIC) | | |
| | attribute-value: 5 | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | 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/AM/BV-005 | | |
|--|-------------------|---|--|--|
| TP label | | Attribute-Value-Map. Order change. (0x1c20) | | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | | |
| | Testable items | FixedDosage12; M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial condition The simulated agent and the manager under test are in the operation standard 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 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. | | |
| | | 5. 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. |
| | 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. |
| | 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 ld | | TP/PLT/MAN/CLASS/AM/BV-006 | | | | |
|----------------|-------------------|--|--|---|--------------------------------|--|
| TP label | | Attribute-Value-Map. Order change. (0x1c23) | | | | |
| Coverage | Spec | [ISO/IEE | [ISO/IEEE 11073-10472] | | | |
| | Testable items | VarDosa | age12; M | UserFeedback12; M | StatReporter12; M | |
| Applicability | y | C_MAN | _OXP_000 AND C_M | AN_OXP_016 | | |
| Initial condi | tion | | ulated agent and the r d configuration (0x1c2 | nanager under test are in the op 3). | perating state using the | |
| 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_S MDC_ATTR_ENUM_ | STAMP_ABS then _OBS_VAL_BASIC_BIT_STR fc | or Status Reporter Object | |
| | | 2. The simulated agent waits until it receives a confirmation. | | | | |
| | | Val | ue-Map configuration of | ds a confirmed variable event re of handle 2 (Variable Dosage M nd of handle 3 (Status Reporter | edication Object), of handle 4 | |
| | | • | MDC_ATTR_NU_VA | L_OBS_BASIC then MDC_ATT | R_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. |
| | 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. |
| | 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 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 | | | |
| Applicability C_MAN_OXP_00 | | C_MAN_OXP_000 AND C_MA | N_OXP_016 | | |
| Initial condition | | The simulated agent and the m standard configuration (0x1c23 | nanager under test are in the op | erating state using the | |
| Test procedure | | | s a confirmed variable event rep oservation with the compound fi | | |

| | 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 (<i>A medication dosage was not dispensed within the regimen allowed timing</i>). |
|--------------------|--|
| | 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 label | | TP/PLT/MAN/CLASS/AM/BV-008 | | |
|---|-------------------|--|--|--|
| | | Metric-id-list. Id order change – fixed format | | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | | |
| | Testable items | UserFeedback9; M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial condition The simulated agent and the manager under test are in the operating state standard configuration (0x1c23). | | 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 c | riteria | • 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 Id TP label | | TP/PLT/MAN/CLASS/AM/BV-009 Metric-id-list. Id order change – variable format | | |
|-------------------|-------------------|---|--|--|
| | | | | Coverage Spec |
| | Testable items | UserFeedback9; M | | |
| Applicability | | C_MAN_OXP_000 AND C_MA | AN_OXP_016 | |
| Initial condition | | The simulated agent and the m standard configuration (0x1c23) | nanager under test are in the op 3). | erating state using the |
| Test procedure | | feedback) setting MDC_A then MDC_AI_MED_UF_L | s a confirmed variable event rep TTR_ID_PHYSIO_LIST to (MDC LOCATION). In a second observ s (SFLOAT) to (4, 5) along with a | C_AI_MED_UF_RESPONSE, ation scan, for handle 4 set |
| | | 2. The simulated agent waits | until it receives a confirmation f | rom 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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 |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_016 |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23). |
| Test proced | dure | 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 label | | TP/PLT/MAN/CLASS/AM/BV-012 Special values. Not a number – fixed format (0x1c20) | | |
|--------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | FixedDosage12; M | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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. | | |
| | | 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/AM/BV-013 | | |
|--------------------|-----------------------------|--|--|--|
| | | Special values. Not a number – variable format(0x1c20) | | |
| Coverage | Spec [ISO/IEEE 11073-10472] | | | |
| | Testable items | FixedDosage22; C | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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 | | |
|--------------------|-------------------|---|--|--|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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) containing an observation with 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 label | | TP/PLT/MAN/CLASS/AM/BV-015 Special values. Not at this resolution – variable format (0x1c20) | |
|--------------------|-------------------|---|--|
| | | | |
| | Testable items | FixedDosage22; C | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | |
| 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 NRes ([exponent 0, mantissa -(2**11) = 0x0800]). | |
| Pass/Fail criteria | | 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 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 | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20). | |
| Test procedure | | 1. 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. |

| 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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 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 label | | TP/PLT/MAN/CLASS/AM/BV-018 | | |
|--------------------|-------------------|---|--|--|
| | | Special values. Negative infinity – fixed format (0x1c20) | | |
| Coverage Spec | | [ISO/IEEE 11073-10472] | | |
| | Testable items | FixedDosage12; M | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial cond | ition | 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 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 label | | TP/PLT/MAN/CLASS/AM/BV-019 Special values. Negative infinity – variable format (0x1c20) | | |
|--------------------|-------------------|---|--|--|
| | | | | |
| | Testable items | FixedDosage22; C | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| 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 (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 | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial cond | ition | The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c20). | | |
| Test procee | dure | 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. | | |

| TP ld | | TP/PLT/MAN/CLASS/AM/BV-021 | |
|---------------------------------|------|---|--|
| TP label | | Special values. Reserved – variable format (0x1c20) | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | |
| Testable FixedDosage22; C items | | FixedDosage22; C | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_016 | |

| 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 label | | TP/PLT/MAN/CLASS/AM/BV-022 | | |
|--------------------|-------------------|---|------------------------------------|--|
| | | Special values. Not a numb | per – fixed format (0x1c23) | |
| Coverage Spec | | [ISO/IEEE 11073-10472] | | |
| | Testable items | VarDosage12; M | UserFeedback12; M | |
| Applicabilit | У | C_MAN_OXP_000 AND C | _MAN_OXP_016 | |
| 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 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 co | nsidered as an implicit test case. | |

| TP Id TP label | | TP/PLT/MAN/CLASS/AM/BV-023 Special values. Not a number – variable format (0x1c23) | | |
|-------------------|-------------------|---|-------------------|--|
| | | | | |
| | Testable items | VarDosage20; C | UserFeedback23; C | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration $(0x1c23)$. | | |
| Test procedure | | Dosage Medication to the value for Nal | | containing an observation value set 3 - 1) = 0x007FFFFF] for Variable |

| | 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/AM/BV-024 | | |
|--------------------|-------------------|---|-----------------------------------|------|
| | | Special values. Not at thi | is resolution – fixed format (0x1 | c23) |
| Coverage Spec | | [ISO/IEEE 11073-10472] | | |
| | Testable items | VarDosage12; M | UserFeedback12; M | |
| Applicabilit | y | C_MAN_OXP_000 AND | C_MAN_OXP_016 | |
| Initial cond | ition | 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 Dosage Medication) and handle 4 (User Feedback) containing an observation value set to the value for NRes ([exponent 0, mantissa +(2**23) = 0x00800000] for Variable Dosage Medication and [exponent 0, mantissa -(2**11) = 0x0800] 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 o | considered as an implicit test ca | ase. |

| TP ld TP label | | TP/PLT/MAN/CLASS/AM/BV-025 | | |
|--------------------|-------------------|---|---------------------------------|--|
| | | Special values. Not at this resolution – variable format (0x1c23) | | |
| Coverage Spec | | [ISO/IEEE 11073-10472] | | |
| | Testable items | VarDosage20; C | UserFeedback23; C | |
| Applicabilit | У | C_MAN_OXP_000 AND C_M | AN_OXP_016 | |
| Initial cond | ition | 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 NRes ([exponent 0, mantissa +(2**23) = 0x00800000] for Variable Dosage Medication and [exponent 0, mantissa -(2**11) = 0x0800] for User Feedback). 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 consi | dered as an implicit test case. | |

| TP ld TP label | | TP/PLT/MAN/CLASS/AM/BV-026 Special values. Positive infinity – fixed format (0x1c23) | | |
|--------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | VarDosage12; M UserFeedback12; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_016 | | |
| Initial cond | ition | 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 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) = 0x007FFFFE] 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 label | | TP/PLT/MAN/CLASS/AM/BV-027 | | |
|--------------------|-------------------|--|-------------------|--|
| | | Special values. Positive infinity – variable format (0x1c23) | | |
| Coverage | Spec | [ISO/IEEE 11073-10472 | 2] | |
| | Testable items | VarDosage20; C | UserFeedback23; C | |
| Applicabilit | y | C_MAN_OXP_000 AND | D C_MAN_OXP_016 | |
| 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 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 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 | VarDosag | e12; M | UserFeedback12; M | | | |
|---|-------------------|---|--|---|-----------------------------------|--|--|
| Applicability | | C_MAN_0 | DXP_000 AND | C_MAN_OXP_016 | | | |
| Initial condit | ion | | The simulated agent and the manager under test are in the operating state using the standard configuration (0x1c23). | | | | |
| Test procedu | Ire | Medie value 0x008 0x08 | cation) and han for negative inf 300002] for Var 02] for User Fee | Idle 4 (User Feedback) containin finity (–INFINITY, [exponent 0, m riable Dosage Medication and [ex edback). | xponent 0, mantissa –(2**11 -2) = | | |
| | | 2. The simulated agent waits until it receives a confirmation from the manager under test. | | | | | |
| Pass/Fail crit | teria | • 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 implic | | | | considered as an implicit test cas | se. | | |

| TP ld | | TP/PLT/MAN/CLASS/AM/BV-029 | | | | | |
|--------------------|-------------------|---|--|--|--|--|--|
| TP label | | Special values. Negative | Special values. Negative infinity – variable format (0x1c23) | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | | | | | |
| | Testable items | VarDosage20; C | UserFeedback23; C | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | |
| Initial cond | ition | 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 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-030 | | | | |
|-------------------|------|--|-------------------|--|--|--|
| TP label | | Special values. Reserved – fixed format (0x1c23) | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | | | | |
| Testable items | | VarDosage12; M | UserFeedback12; M | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | |
| 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 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 ld | | TP/PLT/MAN/CLASS/AM/BV-031 | | | | | |
|--------------------|-------|--|---|--|--|--|--|
| TP label | | Special values. Reserved – v | Special values. Reserved – variable format (0x1c23) | | | | |
| Coverage | Spec | Dec [ISO/IEEE 11073-10472] | | | | | |
| Testable items | | VarDosage20; C | UserFeedback23; C | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_M | /AN_OXP_016 | | | | |
| Initial cond | ition | 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 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 cons | sidered as an implicit test case. | | | | |

| TP ld | | TP/PLT/MAN/CLASS/AM/BV-032 | | | | | |
|---------------|----------|----------------------------|----------------------------------|-------------------|--|--|--|
| TP label | | Association procedure Man | Association procedure Manager AM | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10472] | | | | | |
| | Testable | 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 | | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C | _MAN_OXP_016 | | | | |
| Initial condi | tion | The manager is in the una | ssociated state. | | | | |

| Test procedure | 1. The simulated agent sends an association request to the manager under test, with the fields: |
|----------------|--|
| | protocol-version = '1000000000000000000000000000000'B |
| | encoding-rules= '10000000000000'B |
| | nomenclature-version = '100000000000000000000000000000'B |
| | functional-units = '00000000000000000000000000000000000 |
| | system-type = '0000000100000000000000000000000'B |
| | 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 |
| | \Box option-list.length=0 |
| | The manager under test sends an association response. The fields of interest are: |
| | a. APDU Type |
| | $\Box \text{field-length} = 2 \text{ bytes}$ |
| | $\Box \text{field-value} = 0 \times \text{E3} 0 \times 00 \text{ (AareApdu)}$ |
| | b. Result |
| | □ field- type = AssociateResult |
| | $\Box \text{field-length} = 2 \text{ bytes}$ |
| | 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 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 |
| | $\Box field-length = 2 \text{ bytes}$ |
| | □ 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 |
| | $\Box \text{field-length} = 2 \text{ bytes (BITS-16)}$ |
| | field-value= depends on the encoding rules supported/selected, but only one |

| | | and he supported at a time |
|--------------------|----------|---|
| | | 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 |
| | | □ 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field- type = INT-U8 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| Pass/Fail criteria | All cheo | cked values are as specified in the test procedure. |
| Notes | Value fo | or protocol-version has been modified according to [ISO/IEEE 11073-20601A]. |
| | data-re | q-init-agent-count verification has been updated according to IEEE PHD errata. See ontinua.plugfests.com/show_bug.cgi?id=786 for further details. |

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 | | | | | |
| Applicability | , | C_ | MAN | _OXP_000 AND C_MAN_OXP_018 | | | | |
| Initial condit | ion | The | e sim | ulated 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 0x08 0x34 (Peak Flow) | | | | | | |
| | | | 2. The manager under test responds with an association response, the field of interest is: a. Result a. field- type = INT-U16 b. field-length =2 bytes | | | | | |
| | | lf tł | ne re | □ field-value = 0x00 0x00 (accepted) or 0x00 0x03 (accepted-unknown-config) sult of the association response was "accepted-unknown-config" | | | | |
| | | 3. | | simulated agent sends a configuration event report with config-report-id set to 0x08 | | | | |
| | | 4. | The a. | manager under test must respond with: 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:ifield-type = HANDLEifield-length =2 bytesifield-value = 0x00 0x00 | | | | |
| | | | d. e. | Event-time: i field- type = INT-U32 field-length =4 bytes field-value: 0xXX 0xXX Event-type: | | | | |
| | | | f. | field-length = 2 bytes field-value = MDC_NOTI_CONFIG 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/PF/BV-001 | | | | | | | |
|----------------|-------------------|--|---|------|--|--|--|--|--|
| TP label | | Maximum APDU size: Peak Flow | | | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | | | | | |
| | Testable items | CommonCharac 4;M | | | | | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MA | N_OXP_018 | | | | | | |
| Initial condit | ion | The manager under test is in the | ne operating state. | | | | | | |
| Test proced | ure | <pre>a. ScanReportInfoVar. obs Count =2 Length = 1996 ObservationSca obj-handle attributes AVA-Type attribu attribu { } } ObservationSc obj-handle attributes AVA-Type Attributes Attribut</pre> | <pre>an ::= { 1 AttributeList ::= { it= { ate-id: 61441 ate-value: 00(1970 bytes) can ::= { 1 AttributeList ::= { ::= {</pre> | 00'0 | | | | | |
| | | Check the response of the manager under test. The simulated agent conde a Confirmed fixed event report with one massurement. | | | | | | | |
| | | The simulated agent sends a Confirmed fixed event report with one measurement. Check the response of the manager under test. | | | | | | | |
| Pass/Fail cri | teria | report". | er test must respond with a "ror er test must respond with a "ror | | | | | | |

| Notes | |
|-------|--|
| | |

| TP ld | | TP/PLT | /MAN/CLASS/PF/BV-0 | 02 | |
|----------------|-------------------|---|---|---|------------------------------|
| TP label | | Attribute-Value-Map. Order change. (0x0834) | | | |
| Coverage | Spec | [ISO/IEEE 11073-10421] | | | |
| | Testable items | PEF12 | ; M | PersBest12; M | FEV1S12; M |
| | | ReadS | tatus12; M | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_018 | | | |
| Initial condit | tion | | nulated agent and the n d configuration (0x0834 | nanager under test are in the op 4). | perating state using the |
| Test proced | ure | | e simulated agent send ribute-Value-Map order | s a confirmed fixed format ever of: | t report that matches the |
| | | • | MDC_ATTR_NU_ VA Object | L_OBS_SIMP then MDC_ATT | R_TIME_STAMP_ABS for PEF |
| | | • | MDC_ATTR_NU_ VA Personal Best Object | L_OBS_SIMP then MDC_ATT | R_TIME_STAMP_ABS for |
| | | • | MDC_ATTR_NU_ VA FEV1 Object | L_OBS_SIMP then MDC_ATT | R_TIME_STAMP_ABS for |
| | | MDC_ATTR_NU_VAL_OBS_BASIC_BIT_STRING then MDC_ATTR_TIME_STAMP_ABS for Reading status Object | | | |
| | | 2. The simulated agent waits until it receives a confirmation. | | | |
| | | Va | lue-Map configuration of handle 3 (FEV1 Object) | s a confirmed variable event re of handle 1 (PEF Object), of har and of handle 5 (Reading statu | |
| | | • | MDC_ATTR_TIME_S Object | TAMP_ABS then MDC_ATTR_ | NU_VAL_OBS_SIMP for PEF |
| | | • | MDC_ATTR_TIME_S Personal Best Object | TAMP_ABS then MDC_ATTR_ | NU_VAL_OBS_SIMP for |
| | | • | MDC_ATTR_TIME_S FEV1 Object | TAMP_ABS then MDC_ATTR_ | NU_VAL_OBS_SIMP for |
| | | • | MDC_ATTR_TIME_S MDC_ATTR_NU_VA | TAMP_ABS then L_OBS_BASIC_BIT_STRING for | or Reading status Object |
| | | 4. Th | e simulated agent waits | until it receives a confirmation. | |
| | | | nd a confirmed fixed for easurement data for eve | rmat event report with the date erry object. | (absolute-time-stamp) by a |
| | | 6. Th | e simulated agent waits | until it receives a confirmation. | |
| | | 7. Th | e simulated agent send | s an association release reques | st (normal). |
| | | 8. Th | e simulated agent waits | until there is an association rel | ease response. |
| | | | e simulated agent send nfiguration that was use | s an association request using ed previously. | the same standard |
| | | | he manager under test known-config", then | responds with association requ | est response with "accepted- |
| | | • | The simulated agent standard configuration | sends the confirmed configurati n. | on event report with the |
| | | • | The simulated agent report that was sent. | waits until there is a confirmatio | n to the configuration event |

| | 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. 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 11073-1042 | 1] | |
| | Testable items | PEF12; M | PersBest12; M | FEV1S12; M |
| Applicabilit | у | C_MAN_OXP_000 AND | D C_MAN_OXP_018 | |
| 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 NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFFF]). The simulated agent waits until it receives a confirmation from the manager under test. | | |
| Pass/Fail criteria | | Verify that the man values as if they we | ager under test is able to ac ere an actual measurement splayed in some form that ir | ccept the data, but does not use the (e.g. if there is a UI, verify that the ndicates it is not a measurement such |
| Notes This test case has been | | n considered as an implicit to | est case. | |

| TP ld | | TP/PLT/MAN/CLASS/PF/BV-0 | 04 | |
|---|--|--------------------------|---------------|------------|
| TP label Special values. Not a number – variable format | | | | |
| Coverage Spec Testable items | | [ISO/IEEE 11073-10421] | | |
| | | PEF20; C | PersBest20; C | FEV1S20; C |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_018 | | | | |

| 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 variable event report for handle 1(PEF), ha 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the v 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 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 ld | | 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 |
| Applicabilit | у | C_MAN_OXP_000 AND C_MA | AN_OXP_018 | |
| | | The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834). | | |
| Test procedure | | (Personal Best) and hand | s a confirmed fixed event repor le 3 (FEV1)containing an obser ssa +(2**23) = 0x00800000]). | |
| | | 2. The simulated agent waits until it receives a confirmation from the manager under te | | from the manager under test. |
| Pass/Fail criteria | | values as if they were an a | nder test is able to accept the da actual measurement (e.g. if the yed in some form that indicates | e is a UI, verify that the |
| Notes This test case has been considered as an implicit te | | dered 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] | [ISO/IEEE 11073-10421] | | | |
| | Testable items | PEF20; C | PEF20; C PersBest20; C FEV1S20; C | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_018 | | | | |
| Initial condi | tion | 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 variable event report for handle 1(PEF), handl 2 (Personal Best) and handle 3 (FEV1) containing an observation value set to the valu for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]). | | ervation value set to the value | | |
| | | 2. The simulated agent waits until it receives a confirmation from the manager under tes | | from the manager under test. | | |
| Pass/Fail criteria | | Verify that the manager up | nder test is able to accept the da | ata, but does not use the | | |

| values as if they were an actual measurement (e.g. if there is a UI, verify t measurement is displayed in some form that indicates it is not a measurer | |
|--|--|
| Notes | This test case has been considered as an implicit test case. |

| TP ld | | TP/PLT/MAN/CLASS/PF/BV-007 | | | |
|--------------------|---------------------------------|---|--|--------------------------------|--|
| TP label | | Special values. Positive infinit | Special values. Positive infinity – fixed format | | |
| Coverage | age Spec [ISO/IEEE 11073-10421] | | | | |
| | Testable items | e PEF12; M PersBest12; M | | FEV1S12; M | |
| Applicability | | C_MAN_OXP_000 AND C_M | AN_OXP_018 | | |
| Initial condition | | The simulated agent and the r standard configuration (0x083 | manager under test are in the op 4). | perating state using the | |
| Test procedure | | (Personal Best) and hance | ds a confirmed fixed event repor lle 3 (FEV1) containing an obse NITY, [exponent 0, mantissa +(2 | rvation value set to the value | |
| | | 2. The simulated agent waits until it receives a confirmation from the manager under the | | 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). | | re is a UI, verify that the | |
| Notes | | This test case has been consi | dered as an implicit test case. | | |

| TP ld TP label | | TP/PLT/MAN/CLASS/PF/BV-008 Special values. Positive infinity – variable format | | |
|--------------------|-------------------|---|---|--|
| | | | | |
| | Testable items | PEF20; C | PersBest20; C | FEV1S20; C |
| Applicabilit | y | C_MAN_OXP_000 AND | C_MAN_OXP_018 | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration (0x0834). | | |
| Test procedure | | 2 (Personal Best) an for positive infinity (+ | d handle 3 (FEV1) containing INFINITY, [exponent 0, manti | event report for handle 1(PEF), handle g an observation value set to the value issa $+(2^{**}23 - 2) = 0x007FFFFE]$). |
| | | 2. The simulated agent | waits until it receives a confir | mation 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 o | Notes This test case has been considered as an implicit test case | |

| TP ld | TP/PLT/MAN/CLASS/PF/BV-009 |
|----------|--|
| TP label | Special values. Negative infinity – fixed format |

| Coverage | Spec | [ISO/IEEE 11073-10421] | | | | | | |
|--------------------|-------------------|--|----------------------------------|------------------------------|--|--|--|--|
| | Testable items | PEF12; M | PersBest12; M | FEV1S12; M | | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MA | AN_OXP_018 | | | | | |
| 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 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. Negative infi | nity – variable format | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10421] | ISO/IEEE 11073-10421] | | | | | |
| | Testable items | PEF20; C | PersBest20; C | FEV1S20; C | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_M | C_MAN_OXP_000 AND C_MAN_OXP_018 | | | | | |
| Initial condi | tion | 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 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]). 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-011 | | | | | |
|-------------------|-------------------|--|---------------------------------|-------------------------------|--|--|--|
| TP label | | Special values. Reserved – fixed format | | | | | |
| Coverage | Spec | [ISO/IEEE 11073-10421] | | | | | |
| | Testable items | PEF12; M | PersBest12; M | FEV1S12; M | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_018 | | | | | |
| 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 send | s a confirmed fixed event repor | t 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-012 | | | | | |
|--------------------|-------------------|--|-----------------------------------|---------|--|--|--|
| TP label | | Special values. Rese | erved – variable format | | | | |
| Coverage | Spec | pec [ISO/IEEE 11073-10421] | | | | | |
| | Testable items | PEF20; C | PEF20; C PersBest20; C FEV1S20; C | | | | |
| Applicabilit | y | C_MAN_OXP_000 A | AND C_MAN_OXP_018 | | | | |
| Initial cond | ition | 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 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 b | een considered as an implicit tes | t case. | | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/PF/BV-013 Association procedure Manager PF | | | | | | |
|-------------------|----------|---|-------------------|-------------------|--|--|--|--|
| | | | | | | | | |
| | 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 | | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_016 | | | | | | |
| Initial condition | | The manager is in the unassociated state. | | | | | | |
| Test procedure | | 1. The simulated agent sends an association request to the manager under test, with the fields: | | | | | | |
| | | protocol-version = '100000000000000000000000000000000000 | | | | | | |

| encoding-rules= '1000000000000000000000000000000000000 | | | | |
|--|----|-----|-----|--|
| <pre>Intertional-units = '00000000000000000000000000000000000</pre> | | | | encoding-rules= '100000000000000'B |
| system-type = '00000001000000000000000000000000B dev-config-id = 16481 data-req_mode_capab = data_req_init_gent_count = 1 data_req_init_gent_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-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) b. Result 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-unknown-config, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x04. If association is rejected-unknown-config, field-value=0x00 0x05. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x07. If association is rejected-unknown = 0x00 0x00. c. selected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data-proto-info(defined by data-proto-id) field-length = 2 bytes field-value=0x50 0x79 (20601) e. protocol-version field-length = 2 bytes field-upte = Protocol Version field-value=0x00 0x00 0x00 field-sulue=0x00 0x00 0x00 0x00 field-value=0x00 0x00 0x00 | | | | nomenclature-version = '10000000000000000000000000000000'B |
| dev-config-id = 16481 data-rep-mode-capab = data_req_init_gagen_count = 1 idata_req_init_gagen_count = 0 option-list length=0 2. The manager under test sends an association response. The fields of interest are: a. APDU Type field-value = 0xE3 0x00 (AareApdu) b. Result field-value = 0xE3 0x00 (AareApdu) b. Result field-value = 0xE3 0x00 (AareApdu) b. Result field-value = 0xe 3 0x00 (AareApdu) c. Result field-value = 0xe 10 the following: e. If association is accepted, field-value=0x00 0x00. e. If association is rejected-permanent, field-value=0x00 0x01. e. If association is rejected-unknown-config, field-value=0x00 0x03. e. If association is rejected-uncommon-protocol, field-value=0x00 0x04. e. If association is rejected-uncommon-protocol, field-value=0x00 0x05. e. If association is rejected-uncommon-protocol, field-value=0x00 0x07. e. If association is rejected-unsupported-assoc-version, field-value=0x00 0x07. e. If association is rejected-unsupported-assoc-version, field-value=0x00 0x00 0x00. c. selected-data-proto-id) d. field-type = DataProtold ifield-value=0x00 0x79 (20601) e. | | | | functional-units = '00000000000000000000000000000000000 |
| data-rep-mode-capab = data_req_mode_flags= '0000000000001'B data_req_init_agen_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-source = 0xe3 0x00 (AareApdu) b. Result field-length = 2 bytes field-source = 0xe of the following: If association is rejected-permanent, field-value=0x00 0x01. If association is rejected-nor-common-protocol, field-value=0x00 0x03. If association is rejected-no-common-parameter, field-value=0x00 0x05. If association is rejected-unauthorized, field-value=0x00 0x07. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. | | | | system-type = '0000000010000000000000000000000000'B |
| data_req_mode_flags= 00000000000001'B data_req_init_agent_count = 1 data_req_init_manager_count =0 option-list.length=0 The manager under test sends an association response. The fields of interest are: APDU Type field-length = 2 bytes field-value = OxE3 0x00 (AareApdu) Result 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-unknown-config, field-value=0x00 0x03. If association is rejected-no-common-parameter, 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-unsupported-assoc-version, field-value=0x00 0x08. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. selected-data-proto (bataProto: de)) data_proto-id/ field-value=0x00 0x70 (20601) protocol-version field-value=0x80 0x79 (20601) protocol-version field-type = Protocol Version field-type = Protocol Version field-type = Protocol Version field-type = EncodingRules field-typ | | | | dev-config-id = 16481 |
| data_req_init_agen_count = 1 data_req_init_manager_count = 0 option-list.length=0 The manager under test sends an association response. The fields of interest are: APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) Result field-value = 0xE3 0x00 (AareApdu) Result 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-permanent, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x04. If association is rejected-unchnown-parameter, field-value=0x00 0x05. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x07. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x07. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. selected-data-proto (DataProto: sequence of data-proto-id (DataProtoId) and data-proto-id() data-proto-id field-value=0x80 0x79 (20601) protocol-version field-value=0x80 0x79 (20601) protocol-version field-ty | | | | data-rep-mode-capab = |
| data_req_init_manager_count =0 option-list.length=0 The manager under test sends an association response. The fields of interest are: APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) Result field-length = 2 bytes field-length = 2 bytes field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) Result field-length = 2 bytes field-value = 0xeo 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 rejected-no-common-parameter, field-value=0x00 0x03. If association is rejected-no-common-parameter, field-value=0x00 0x04. If association is rejected-unknown = 0x00 0x06. If association is rejected-unauthorized, field-value=0x00 0x07. If association is rejected-unauthorized, field-value=0x00 0x07. 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-id field-length = 2 bytes field-length = 2 bytes field-length = 2 bytes field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-length = 4 bytes | | | | data_req_mode_flags= '000000000000001'B |
| 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 rejected-unknown-config, field-value=0x00 0x03. if association is rejected-unknown-config, field-value=0x00 0x04. if association is rejected-unknown = 0x00 0x06. if association is rejected-unknown = 0x00 0x07. if association is rejected-unuthorized, 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-length = 2 bytes field-length = 2 bytes field-length = 2 bytes field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 field-type = EncodingRules | | | | data_req_init_agent_count = 1 |
| 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-length = 2 bytes field-length = 2 bytes 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 rejected-namon-protocol, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x04. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unusupported-assoc-version, field-value=0x00 0x08. 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-id field-type = DataProtold field-type = DataProtold field-type = Protocol Version field-type = Protocol Version field-value=0x80 0x00 0x00 0x00 field-value=0x80 0x00 0x00 0x00 encoding-rules field-value=0x80 0x00 0x00 0x00 | | | | data_req_init_manager_count =0 |
| a. APDU Type field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) Result field-length = 2 bytes 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 rejected-unknown-config, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x04. If association is rejected-unknown-config, field-value=0x00 0x05. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x07. If association is rejected-unuknorized, field-value=0x00 0x07. If association is rejected-unusupported-assoc-version, field-value=0x00 0x08. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. c. selected-data-proto (DataProtoid) data-proto-id field-type = DataProtoid field-length = 2 bytes field-value=0x50 0x79 (20601) e. protocol-version field-value=0x80 0x00 0x00 0x00 field-value=0x80 0x00 0x00 0x00 field-value=0x80 0x00 0x00 0x00 | | | | option-list.length=0 |
| field-length = 2 bytes field-value = 0xE3 0x00 (AareApdu) 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 rejected-unknown-config, field-value=0x00 0x03. If association is rejected-no-common-protocol, field-value=0x00 0x04. If association is rejected-no-common-protocol, field-value=0x00 0x05. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 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-ind(defined by data-proto-id)) d. data-proto-id field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 field-value=0x80 0x00 0x00 field-type = EncodingRules | 2. | The | ma | nager under test sends an association response. The fields of interest are: |
| field-value = 0xE3 0x00 (AareApdu) kesult field-type = AssociateResult field-ingth = 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-unknown = 0x00 0x07. If association is rejected-unknown = 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-ind(defined by data-proto-id)) data-proto-id field-type = DataProtold field-ungth = 2 bytes field-ungth = 2 bytes field-length = 2 bytes field-length = 2 bytes field-ungth = 4 bytes (BITS-32) field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 | | a. | API | DU Type |
| 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-permanent, field-value=0x00 0x02. If association is rejected-unknown-config, field-value=0x00 0x03. If association is rejected-on-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-unsubnorized, field-value=0x00 0x07. If association is rejected-unsubported-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 = DataProtold field-length = 2 bytes field-length = 2 bytes field-spite = 2 bytes field-spite = 2 bytes field-length = 4 bytes (BITS-32) field-ength = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 field-upe = EncodingRules | | | | field-length = 2 bytes |
| 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 rejected-unknown-config, field-value=0x00 0x03. If association is rejected-unknown-config, field-value=0x00 0x04. If association is rejected-on-common-protocol, field-value=0x00 0x05. If association is rejected-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. 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)) data-proto-id field-upt = 2 bytes field-upt = 4 bytes (BITS-32) field-upt = 4 bytes (BITS-32) field-upt = 4 bytes (BITS-32) field-upt = EncodingRules | | | | field-value = 0xE3 0x00 (AareApdu) |
| 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-unknown = 0x00 0x06. 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 = DataProtold field-type = DataProtold field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-length = 4 bytes (BITS-32) field-upue=0x80 0x00 0x00 0x00 | | b. | Res | sult |
| 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-unknown = 0x00 0x06. 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 = DataProtold field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-lengt = 4 bytes (BITS-32) field-ualue=0x80 0x00 0x00 0x00 encoding-rules field-type = EncodingRules | | | | field- type = AssociateResult |
| 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-unknown = 0x00 0x06. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. 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-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 encoding-rules field-type = EncodingRules | | | | field-length = 2 bytes |
| 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-unknown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. 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 = DataProtold field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 | | | | field-value = One of the following: |
| 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-unknown = 0x00 0x06. 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 = DataProtold field-length = 2 bytes field-value=0x50 0x79 (20601) e. protocol-version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 field-value=0x80 0x00 0x00 field-value=0x80 0x00 0x00 | | | | If association is accepted, field-value=0x00 0x00. |
| 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-unchnown = 0x00 0x06. If association is rejected-unknown = 0x00 0x06. If association is rejected-unsupported-assoc-version, field-value=0x00 0x08. 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)) data-proto-id field-type = DataProtold field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 encoding-rules field-type = EncodingRules | | | | If association is rejected-permanent, field-value=0x00 0x01. |
| 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)) data-proto-id field-type = DataProtold field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field-type = Protocol Version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 encoding-rules field-type = EncodingRules | | | | If association is rejected-transient, field-value=0x00 0x02. |
| 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 = 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 | | | | If association is accepted-unknown-config, field-value=0x00 0x03. |
| 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 = 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 | | | | If association is rejected-no-common-protocol, field-value=0x00 0x04. |
| 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 = 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 f. encoding-rules field-type = EncodingRules | | | | If association is rejected-no-common-parameter, field-value=0x00 0x05. |
| 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 = 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 | | | | If association is rejected–unknown = 0x00 0x06. |
| 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 = 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 | | | | If association is rejected-unauthorized, field-value=0x00 0x07. |
| 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- type = DataProtold field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field- type = Protocol Version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 f. encoding-rules field-type = EncodingRules | | c. | | |
| field-length = 2 bytes field-value=0x50 0x79 (20601) protocol-version field- type = Protocol Version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 f. encoding-rules field-type = EncodingRules | | d. | dat | a-proto-id |
| field-value=0x50 0x79 (20601) 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- type = DataProtoId |
| 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 |
| field- type = Protocol Version field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 f. encoding-rules field-type = EncodingRules | | | | field-value=0x50 0x79 (20601) |
| field-length = 4 bytes (BITS-32) field-value=0x80 0x00 0x00 0x00 f. encoding-rules field-type = EncodingRules | | e. | pro | tocol-version |
| field-value=0x80 0x00 0x00 0x00 f. encoding-rules field-type = EncodingRules | | | | field- type = Protocol Version |
| f. encoding-rulesfield-type = EncodingRules | | | | field-length = 4 bytes (BITS-32) |
| □ field-type = EncodingRules | | | | field-value=0x80 0x00 0x00 0x00 |
| | | f. | enc | coding-rules |
| □ field-length = 2 bytes (BITS-16) | | | | 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 | | g. | nor | nenclature version |
| field- type = NomenclatureVersion | | | | field- type = NomenclatureVersion |

| | | $\Box \text{field-length} = 4 \text{ bytes (BITS-32)}$ |
|--------------------|----------|---|
| | | □ 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 |
| | | $\Box field-length = 8 \text{ bytes}$ |
| | | □ field-value = (EUI-64 manufacturer and device) |
| | k. | dev-config-id |
| | | □ field- type = ConfigId |
| | | $\Box field-length = 2 \text{ bytes}$ |
| | | □ field-value = 0x00 0x00 (manager-config-response) |
| | ١. | data-req-mode-flags (DataReqModeCapab) |
| | | field- type = DataReqModeFlags |
| | | $\Box field-length = 2 \text{ bytes}$ |
| | | □ 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field- type = INT-U8 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ 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]. |
| | | q-init-agent-count verification has been updated according to IEEE PHD errata. See <u>intinua.plugfests.com/show_bug.cgi?id=787</u> 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 | [ISO/IEEE 11073-20601A] | | | | | | |
| | Testable items | Coi | ConfEventRep 18;M | | | | | | |
| Applicability | , | C_I | MAN | _OXP | _000 AND C_MAN | I_OXP_027 | | | |
| Initial condit | tion | The | e sim | ulated | agent and the mar | nager under test are in an u | inassociated state. | | |
| Test proced | ure | 1. 2. | dev | /-confi | g-id set to 0x07D0 | (BCA). | to the manager under test with esponse, the field of interest is: | | |
| | | 2. | a. | Resu | | | | | |
| | | | | | ield- type = INT-U1 | 16 | | | |
| | | | | | ield-length =2 byte | S | | | |
| | | | | | field-value = 0x00 0 | 0x00 (accepted) or 0x00 0x0 | 03 (accepted-unknown-config) | | |
| | | lf th | ne re | sult of | the association res | sponse was "accepted-unkr | nown-config" | | |
| | | 3. | The simulated agent sends a configuration event report with config-report-id s 0x07D0. | | | | | | |
| | | 4. | The | e mana | ager under test mus | st respond with: | | | |
| | | | a. | APD | U Туре | | | | |
| | | | | | ield-length =2 byte | S | | | |
| | | | | | ield-value =0xE7 0 | 0x00 (PrstAdpu) | | | |
| | | | b. | Invol | ke-id | | | | |
| | | | | | ield- type = INT-U1 | 16 | | | |
| | | | | | ield-length =2 byte | S | | | |
| | | | | | field-value = it must message. | t be the same as the invoke | e-id of the simulated agent's | | |
| | | | c. | Obj-ł | Handle: | | | | |
| | | | | | ield- type = HANDI | LE | | | |
| | | | | | ield-length =2 byte | S | | | |
| | | | | | ield-value = 0x00 0 | 00x00 | | | |
| | | | d. | Even | t-time: | | | | |
| | | | | | ield- type = INT-U3 | 32 | | | |
| | | | | | ield-length =4 byte | es | | | |
| | | | | | ield-value: 0xXX 0> | xXX | | | |
| | | | e. | Even | t-type: | | | | |
| | | | | | ield-length = 2 byte | es | | | |
| | | | | | ield-value= MDC_N | NOTI_CONFIG | | | |
| | | | f. | The | ollowing six bytes i | indicate: | | | |
| | | | | | Event-replay-info.le | ength (2 bytes) | | | |
| | | | | | ConfigReportRsp.co simulated agent's m | | ne same as config-report-id of the | | |

| | ConfigReportRsp.config-result: One of: | | | | | |
|--------------------|--|--|--|--|--|--|
| | accepted-config: 0x00 0x00 | | | | | |
| | ait 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/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 | | | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_027 | | | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | | | |
| Test procedu | ure | 1. The simulated agent sends a Confirmed variable event report: | | | | | |
| | | a. ScanReportInfoVar. obs_scan_var: | | | | | |
| | | Count =2 | | | | | |
| | | <pre> 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 } } } } </pre> | | | | | |
| | | 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/P | LT/MAN/CLASS/BCA/E | 3V-002 | | |
|----------------|-------------------|---|--|--|------------------------------------|--|
| TP label | | Attribute-Value-Map. Order change | | | | |
| Coverage | Spec | [IEEE | [IEEE 11073-10420] | | | |
| | Testable items | Weig | htNumClass 21; M | BodyHeight22; M | BodyFat23; M | |
| Applicability | | C_M | AN_OXP_000 AND C_ | MAN_OXP_027 | | |
| Initial condit | ion | | simulated agent and the dard configuration. | e manager under test are in the | e operating state using the | |
| Test procedu | ure | The simulated agent sends a confirmed fixed format event report that matches the Attribute-Value-Map order of: | | | | |
| | | | MDC_ATTR_NU_ ' Body Weight Object | VAL_OBS_SIMP then MDC_A | TTR_TIME_STAMP_ABS for | |
| | | | MDC_ATTR_NU_ Body Height Objec | VAL_OBS_SIMP then MDC_A t | TTR_TIME_STAMP_ABS for | |
| | | | 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. | | | | |
| | | 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 Body Height Objec | _STAMP_ABS then MDC_ATT t | <pre>FR_NU_ VAL_OBS_SIMP for</pre> | |
| | | | MDC_ATTR_TIME Body Fat Object | _STAMP_ABS then MDC_ATT | <pre>FR_NU_ VAL_OBS_SIMP for</pre> | |
| | | 4. | The simulated agent wa | aits until it receives a confirmati | ion. | |
| | | | Send a confirmed fixed measurement data for e | format event report with the da every object. | ate (absolute-time-stamp) by a | |
| | | 6. | The simulated agent wa | aits until it receives a confirmati | ion. | |
| | | 7. | The simulated agent se | nds an association release req | uest (normal). | |
| | | 8. | The simulated agent wa | its until there is an association | release response. | |
| | | | The simulated agent se configuration that was u | nds an association request usi ised previously. | ng the same standard | |
| | | | If the manager under te unknown-config", then | st responds with association re | equest response with "accepted- | |
| | | | The simulated age standard configuration | nt sends the confirmed configu tion. | ration event report with the | |
| | | | The simulated agen report that was sen | | ation to the configuration event | |
| | | 11. | The simulated agent se | nds a fixed event report followi | ng 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 label Coverage | Spec Testable | | ibute-Value-Map. Adding ad EE 11073-10420] | dditional attributes to the Attribu | te-Value-Map |
|----------------------|------------------|---|--|--|---------------------------------|
| Coverage | - | (IEE | EE 11073-10420] | | |
| | Testable | | | | |
| | items | We | ightNumClass 21;M | | |
| Applicability | 1 | C_I | MAN_OXP_000 AND C_MA | N_OXP_027 AND C_MAN_BC | A_001 |
| Initial condit | lion | 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 | | • | | anager under test is able to acc o the correct attributes (e.g. if th e displayed properly). | |
| | | • | | anager under test is able to acc o the correct attributes (e.g. if th properly). | |
| | | • | In steps 4 and 6, verify that measurement reports. | at the manager under test uses | pounds as the unit code for the |
| Notes | | | | | |

| TP ld | | 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 | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_001 | | | |
| 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 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. | | | |
| | | 3. 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_001)) | | |

| 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. | | |
| | 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 label | | TP/PLT/MAN/CLASS/BCA/BV-006 Unit-Code Body Weight. Use default kilograms – variable format observation | | |
|--------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | WeightNumClass 19; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_027 | | |
| Initial condi | tion | 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 | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_001 | |

| 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. |
| | 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_002 | | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | | |
| Test procedure | | Ũ | ds a confirmed variable event rep Object) to inches nomenclature | 5 |
| | | 2. The simulated agent waits until it receives a confirmation. | | |
| | | 3. Send a confirmed fixed for date and time stamp. | ormat event report using a meas | urement in inches followed by |
| | | 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 centimetres 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 inches 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 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-009 | | | |
|--------------------|-------------------|--|--|--|--|
| TP label | | Unit-Code Body Height. Do not change from default centimetres to inches – fixed format observation | | | |
| Coverage | Spec | [IEEE 11073-10420] | | | |
| | Testable items | BodyHeight20; M | | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_027 AND (NOT(C_MAN_BCA_002)) | | | |
| 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 to change the Unit-Code of handle 2 (Body Height Object) to inches nomenclature code MDC_DIM_INCH (1376). The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or until TO cer-mds expires. 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. The simulated agent waits until it receives a confirmation, roer message, abrt message, release association or rorj message or TO cer-mds expires. 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 label | | TP/PLT/MAN/CLASS/BCA/BV-010 Unit-Code Body Height. Use default centimetres – variable format observation | | |
|--------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | BodyHeight20; M | | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_027 | | |
| 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 | | | |
| Applicability | , | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_002 | | | |
| Initial condit | ion | 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. 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 "accept 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 ld | | TP/PLT/MAN/CLASS/BCA/BV-012 | | | |
|--------------------|-------------------|---|--|--|--|
| TP label | | Unit-Code Body Fat. Change from default % to kilograms/pounds - fixed format observation | | | |
| Coverage Spec | | [IEEE 11073-10420] | | | |
| | Testable items | BodyFat21; M | | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_003 | | | |
| Initial condi | tion | 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 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 of 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). | | | |

| | 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 Id TP label | | TP/PLT/MAN/CLASS/BCA/BV-013 | | |
|--------------------|-------------------|---|--------------------------|--------------|
| | | Unit-Code Body Fat. Do not change from default % to kilograms/pounds – fixed format observation | | |
| Coverage Spec | | [IEEE 11073-10420] | | |
| | Testable items | BodyFat21; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_M | MAN_OXP_027 AND (NOT(C_M | AN_BCA_003)) |
| Initial condi | ition | 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 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. | | |
| | | 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-014 | |
|----------------------------------|-------------------|---|--|
| TP label | | Unit-Code Body Fat. Use default % – variable format observation | |
| Coverage Spec [IEEE 11073-10420] | | [IEEE 11073-10420] | |
| | Testable items | BodyFat21; M | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_027 | |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. | |

| Test procedure | 1. 2. | 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-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 | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_027 AND C_MAN_BCA_003 | | | | |
| Initial condit | ion | 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 to set the unit code to kilograms MDC_DIM_KILO_G (1731) for handle 3 (Body Fat Object) and a measurement in kilograms. | | | | |
| | | 2. The simulated agent waits until it receives a confirmation. | | | | |
| | | 3. Send a second confirmed variable format event report with just a measurement in kilograms (i.e., do not transmit the unit-code attribute in the event report). | | | | |
| | | 4. The simulated agent waits until it receives a confirmation. | | | | |
| | | 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. | | | | |
| | | 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 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 confirmed variable event report with an observation in % 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). | | | | |
| | | 14. 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 kilograms 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 steps 6 and 8, 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 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 label | | TP/PLT/MAN/CLASS/BCA/BV-016 | | | |
|--------------------|-------------------|--|------------------------------------|--------------|--|
| | | Special values. Not a number – fixed format | | | |
| Coverage Spec | | [IEEE 11073-10420] | | | |
| | Testable items | WeightNumClass 21; M | BodyHeight22; M | BodyFat23; M | |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_027 | | | |
| 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 for NaN ([exponent 0, mantissa +(2**23 –1) = 0x007FFFF]) 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 co | nsidered as an implicit test case. | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/BCA/BV-017 | | | | |
|--------------------|-------------------------------|--|---|--|--|--|
| | | Special values. Not a number – variable format | | | | |
| Coverage | erage Spec [IEEE 11073-10420] | | | | | |
| | Testable items | WeightNumClass 26; M | BodyHeight38; M | BodyFat39; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_027 | | | | |
| Initial cond | ition | 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), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation with the value for NaN ([exponent 0, mantissa +(2**23 -1) = 0x007FFFF]). The simulated agent waits until it receives a confirmation from the manager under test. | | | | |
| Pass/Fail criteria | | Verify that the manager unvalues as if they were an | nder test is able to accept the da actual measurement (e.g. if ther d in some form that indicates it is | ata, but does not use the re is a UI, verify that the | | |

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

| TP ld | | 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 | |
| Applicabilit | y | C_MAN_OXP_000 AND C_M/ | AN_OXP_027 | | |
| 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 for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]) and a time stamp. | | | |
| | | 2. The simulated agent waits | s until it receives a confirmation | from the manager under test. | |
| value | | values as if they were an | 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-019 | | |
|--|---|---|----------------------------------|--------------------------|
| TP label | TP label Special values. Not at this resolution – variable format | | | |
| Coverage Spec | | [IEEE 11073-10420] | _ | |
| | Testable items | WeightNumClass 26; M | BodyHeight38; M | BodyFat39; M |
| Applicabilit | у | C_MAN_OXP_000 AND C_MA | AN_OXP_027 | |
| Initial cond | ition | The simulated agent and the n standard configuration. | nanager under test are in the op | perating state using the |
| Test procedure1. The simulated agent sends a confirmed variable event report for handle Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an the value for NRes ([exponent 0, mantissa +(2**23) = 0x00800000]). | | containing an observation with 0800000]). | | |
| | | 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 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-020 | | TP/PLT/MAN/CLASS/BCA/BV-020 |
|---|--|--|
| TP label Special values. Positive infinity – fixed format | | Special values. Positive infinity – fixed format |
| Coverage Spec [IEEE 11073-10420] | | [IEEE 11073-10420] |

| | Testable items | WeightNumClass 21; M | BodyHeight22; M | BodyFat23; M | | |
|----------------------------------|--|---|--|-----------------------------|--|--|
| Applicability | , | C_MAN_OXP_000 AND C_ | MAN_OXP_027 | | | |
| Initial condit | ion | The simulated agent and the manager under test are in the operating state using the standard configuration. | | | | |
| handle 2 (Body value for positiv | | handle 2 (Body Height) | ends a confirmed fixed event repo and handle 3 (Body Fat) contain y (+INFINITY, [exponent 0, mant ne stamp. | ing an observation with the | | |
| | | 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/BCA/BV-021 | | | | | |
|--------------------|-------------------|---|---|--------------------------|--|--|--|
| TP label | | Special values. Positive inf | Special values. Positive infinity – variable format | | | | |
| Coverage Spec | | [IEEE 11073-10420] | | | | | |
| | Testable items | WeightNumClass 26; M | BodyHeight38; M | BodyFat39; M | | | |
| Applicabilit | У | C_MAN_OXP_000 AND C | _MAN_OXP_027 | | | | |
| Initial cond | ition | The simulated agent and th standard configuration. | ne manager under test are in the c | perating state using the | | | |
| 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 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 te | | This test case has been co | nsidered as an implicit test case. | | | | |

| TP ld | | TP/PLT/MAN/CLASS/BCA/BV-022 | | | |
|--|---|---|-----------------|--------------|--|
| TP label | TP label Special values. Negative infinity – fixed format | | | | |
| Coverage Spec Testable items | | [IEEE 11073-10420] | | | |
| | | WeightNumClass 21; M | BodyHeight22; M | BodyFat23; M | |
| Applicability C_MAN_OXP_000 AND C_MAN_OX | | AN_OXP_027 | | | |
| 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 han | | t 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 – $(2^{**}23 - 2) = 0x00800002$]) 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-023 | | |
|--|---|--------------------------------|--|-----------------------------|
| TP label | | Special values. Negative in | finity – variable format | |
| Coverage Spec | | [IEEE 11073-10420] | | |
| | Testable items | WeightNumClass 26; M | BodyHeight38; M | BodyFat39; M |
| Applicabilit | y | C_MAN_OXP_000 AND C | _MAN_OXP_027 | |
| Initial cond | Initial condition The simulated agent and the manager under test are in the operating state using standard configuration. | | perating state using the | |
| Test procedure 1. The simulated agent sends a confirmed variable event report for Weight), handle 2 (Body Height) and handle 3 (Body Fat) contai the value for negative infinity (–INFINITY, [exponent 0, mantissa 0x00800002]). | | containing an observation with | | |
| 2. The simulated agent waits until it receives a confirmation from the manager of | | from the manager under test. | | |
| values as it | | values as if they were | er under test is able to accept the d an actual measurement (e.g. if the ayed in some form that indicates it i | re is a UI, verify that the |
| Notes This test case has been considered as an implicit test case. | | | | |

| TP ld | | TP/PLT/MAN/CLASS/BCA/BV-024 | | | |
|------------------------------------|---|---|---|-----------------------------------|--|
| TP label | FP label Special values. Reserved – fixed format | | | | |
| Coverage Spec Testable items | | [IEEE 11073-10420] | | | |
| | | WeightNumClass 21; M | BodyHeight22; M | BodyFat23; M | |
| Applicabilit | у | C_MAN_OXP_000 AND C_N | IAN_OXP_027 | | |
| | | The simulated agent and the standard configuration. | manager under test are in the op | perating state using the | |
| 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. | | | |
| | | 2. The simulated agent waits until it receives a confirmation from the manager under test. | | | |
| Pass/Fail criteria | | but does not use the value | under test either reports an error les as if they were an actual mea ent is displayed in some form th | asurement (e.g. if there is a UI, | |

| This test case has been considered as an implicit test case. |
|--|
|--|

| TP ld | | TP/PLT/MAN/CLASS/BCA/BV-025 | | | | |
|--|---|--|--|-----------------|--------------|--|
| TP label | | Spe | ecial values. Reserved – va | ariable format | | |
| Coverage Spec Testable items | | [IEI | EE 11073-10420] | | | |
| | | We | eightNumClass 26; M | BodyHeight38; M | BodyFat39; M | |
| Applicabilit | y | C_ | MAN_OXP_000 AND C_M | AN_OXP_027 | | |
| 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), 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. | 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 label | | TP/PLT/MAN/CLASS/BCA/BV-026 Association procedure Manager BCA | | | | |
|-------------------|----------|---|--|--|--|--|
| | | | | | | |
| | 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 | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_027 | | | | |
| Initial condition | | The manager is in the una | ssociated state. | | | |
| Test procedure | | 1. The simulated agent s fields: | ends an association request to | the manager under test, with th | | |
| | | protocol-vers | ion = '10000000000000000000 | 000000000000'B | | |
| | | | es= '100000000000000'B | | | |
| | | | e-version = '1000000000000000 | 00000000000000000000000000000000000000 | | |
| | | functional-un | its = '00000000000000000000000000000000000 | 000000000000'B | | |
| | | System-type | = '00000000100000000000000 | 000000000'B | | |
| | | dev-config-id | = 16481 | | | |

| 1 | | | |
|----|-----|------|--|
| | | | 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 | mai | nager 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. |
| | | | 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. | data | a-proto-id |
| | | | field- type = DataProtold |
| | | | 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 |
| | 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. | 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. | 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 |
| | | $\Box field-length = 2 \text{ bytes}$ |
| | | □ field-value = 0x00 (manager-config-response) |
| | I. | 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field- type = INT-U8 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| Pass/Fail criteria | All chec | ked 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 | Co | nfEv | entR | ep 18;M | |
| Applicability | / | C_ | MAN | _ox | P_000 AND C_MAN_OXP_029 | |
| Initial condit | tion | The | e sim | ulate | ed agent and the manager under test are in an unassociated state. | |
| Test procedure | | 1. | The | e sim | ulated agent test sends an association request to the manager under test with fig-id set to 0x0258 (HR). | |
| | | 2. | The | e ma | 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 (accepted) or 0x00 0x03 (accepted-unknown-config) | |
| | | lf tł | he re | sult o | of the association response was "accepted-unknown-config" | |
| | | 3. | | e sim)258. | ulated agent sends a configuration event report with config-report-id set to | |
| | | 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 | |
| | | | 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 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/ECG/BV-001 | | | |
|----------------|-------------------|--|--|--|--|
| TP label | - | Maximum APDU size: Basic ECG specialization/Heart Rate profile without PM-Store | | | |
| Coverage | Spec | [ISO/IEEE 11073-20601A] | | | |
| | Testable items | CommonCharac 4;M | | | |
| | Spec | [IEEE 11073-10406] | | | |
| | Testable items | CommChar1; M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_029 | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | |
| Test procedure | | <pre>1. 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-value: '00(1224 bytes) 00'0</pre> | | | |
| | | 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/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 | | | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_030 | | | | |
| Initial condi | tion | The manager under test is in the operating state. | | | | |
| Test procedure | | <pre>1. 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 ::= { attributes: AttributeList ::= { AVA-Type ::= { attributes: AttributeList ::= { AVA-Type ::= {</pre> | | | | |
| | | Check the response of the manager under test. The simulated agent sends a Confirmed variable event report with one attribute update. | | | | |
| | | 4. Check the response of the manager under test. | | | | |
| Pass/Fail cr | iteria | • 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 | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_029 | | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | | |
| Test procedu | | <pre>1. 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-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 represent of the measure undertext </pre> | | | | |
| | | Check the response of the manager under test. The simulated agent sends a confirmed fixed format event report with one measurement. | | | | |
| Pass/Fail cri | teria | 4. Check the response of the manager under test. 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-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 | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_030 | | | |
| Initial condit | ion | The manager under test is in the operating state. | | | |
| Test procedu | ıre | <pre>1. 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-value: '00 (64448 bytes) 00'0 } } ObservationScan ::= { obj-handle: 9 attributes: AttributeList ::= { AVA-Type ::= {</pre> | | | |
| | | Check the response of the manager under test. The simulated agent sends a Confirmed variable event report with one attribute update. | | | |
| | | The simulated agent sends a committee variable event report with one attribute update. Check the response of the manager under test. | | | |
| Pass/Fail crit | teria | 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 | [IEEE 11073-10406] |

| | Testable items | HeartRate22; M |
|--------------------|-------------------|---|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_029 |
| Initial condition | | The simulated agent and the manager under test are in the operating state using the standard configuration. |
| Test procedu | re | 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. |
| | | 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_REL). The observations should be reasonable Heart Rate. |
| | | 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 ld | 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 | | |
| Applicability | | C_MAN_OXP_000 AND C_M | IAN_OXP_029 | |
| 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 with the value for NaN ([exponent 0, mantissa +(2**11 -1) = 0x07FF]) and a time stamp. | | |
| | | 2. The simulated agent wai | s until it receives a confirmation | from the manager under test. |
| Pass/Fail criteria | | values as if they were an | under test is able to accept the da actual measurement (e.g. if ther d in some form that indicates it is splay area). | e is a UI, verify that the |
| 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_029 | | |
| 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 has been considered as an implicit test case. | | |

| TP ld | | TP/PLT/MAN/CLASS/ECG/BV-0 | 008 | |
|----------------------------------|-------------------|--|---------------------------------|-------------------------------|
| TP label | | Basic ECG Specialization/Heart format (Std Config 600) | Rate profile. Special values. N | ot at this resolution – fixed |
| Coverage Spec [IEEE 11073-10406] | | | | |
| | Testable items | HeartRate22; M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN | J_OXP_029 | |

| 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 | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_029 | | |
| 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 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] | | [IEEE 11073-10406] |
| | Testable items | HeartRate22; M |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_029 |
| 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 ld | | TP/PLT/MAN/CLASS/ECG/BV-011 | |
|--------------------|-------------------|---|--|
| TP label | | Basic ECG Specialization/Heart Rate profile. Special values. Positive infinity – variable format (Std Config 600) | |
| Coverage | Spec | [IEEE 11073-10406] | |
| | Testable items | HeartRate44; M | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_029 | |
| 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 | | |
|--------------------|-------------------|---|--|--|
| 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_029 | | |
| 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_029 | | |
| 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]). The simulated agent waits until it receives a confirmation from the manager under test. | | |
| | | 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 | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_029 | | | | |
| Initial cond | ition | 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 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 | | | |
|--------------------|-------------------|---|--------------------------------------|------------------------------|--|
| Applicability | 1 | C_MAN_OXP_000 AND C_I | MAN_OXP_029 | | |
| 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 wa | its 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 con | sidered 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 | | | | | |
| Applicability | / | C_MAN_OXP_000 AND (C_N | MAN_OXP_029 OR C_MAN_ | OXP_030) | | | |
| Initial condi | tion | 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= '10000000000000'B | | | | | |
| | | nomenclature-version = '10000000000000000000000000000'B | | | | | |
| | | □ functional-units = '00000000000000000000000000000000000 | | | | | |
| | | □ system-type = '00000001000000000000000000000000B | | | | | |
| | | \Box dev-config-id = 2 | | | | | |
| | | data-rep-mode-capab = | | | | | |
| | | data_req_mode_flags= '00000000000001'B | | | | | |
| | | data_req_ir | data_req_init_agent_count = 1 | | | | |
| | | data_req_ir | nit_manager_count =0 | | | | |
| | | option-list.length=0 | | | | | |
| | | 2. The manager under test sends an association response. The fields of interest are: | | | | | |
| | | a. APDU Type | | | | | |
| | | $\Box field-length = 2 t$ | oytes | | | | |

| | | field-value = 0xE3 0x00 (AareApdu) |
|----|-----|--|
| b. | | |
| D. | Re | |
| | | 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 = DataProtold |
| | | 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=0x40 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 |
| | | 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. | 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) |
| | ١. | data-req-mode-flags (DataReqModeCapab) |
| | | field- type = DataReqModeFlags |
| | | $\Box field-length = 2 \text{ bytes}$ |
| | | □ 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 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field-value = 0x00 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field- type = INT-U8 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ 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 (II | NR) |) |
|------|---|-----|---|
|------|---|-----|---|

| TP ld | | TP/PLT/MAN/CLASS/INR/BV-000 | | | | | | |
|----------------|----------|--|---|---|------------------------------------|--|--|--|
| TP label | | Association procedure Manager INR | | | | | | |
| Coverage | Spec | [IEEE 1 | 1073-10418] | | | | | |
| | Testable | | cAs 1;M | ManProcAs 2;M | ManProcAs 3;M | | | |
| | items | ManPro | cAs 4;M | ManProcAs 5;M | ManProcAs 6;M | | | |
| | | ManPro | cAs 7;M | ManProcAs 8;M | ManProcAs 9;M | | | |
| | | ManPro | cAs 10;M | ManProcAs 11;M | ManProcAs 12;M | | | |
| Applicability | , | C_MAN | _OXP_000 AND C_M | AN_OXP_067 | | | | |
| Initial condit | tion | The ma | nager is in the unasso | ciated state. | | | | |
| Test proced | ure | | | | o the manager under test, with the | | | |
| | | field | | | o the manager under test, with the | | | |
| | | | protocol-version = '0' | 100000000000000000000000000000000000000 | 000000000'B | | | |
| | | | encoding-rules= '100 | 0000000000000'B | | | | |
| | | | nomenclature-version = '1000000000000000000000000000000'B | | | | | |
| | | | □ 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 | | | | | | |
| | | option-list.length=0 | | | | | | |
| | | 2. The manager under test sends an association response. The fields of interest are: | | | | | | |
| | | a. | APDU Type | | | | | |
| | | | \Box field-length = 2 k | oytes | | | | |
| | | | □ field-value = 0xE | 3 0x00 (AareApdu) | | | | |
| | | b. | Result | | | | | |
| | | | □ field- type = Ass | ociateResult | | | | |
| | | | \Box field-length = 2 k | oytes | | | | |
| | | | □ field-value = One | e of the following: | | | | |
| | | | If association | n is accepted, field-value= | 0x00 0x00. | | | |
| | | | If association | n is rejected-permanent, fi | eld-value=0x00 0x01. | | | |
| | | | If association | n is rejected-transient, field | d-value=0x00 0x02. | | | |
| | | | If association | n is accepted-unknown-co | nfig, field-value=0x00 0x03. | | | |
| | | | If association | n is rejected-no-common-p | protocol, field-value=0x00 0x04. | | | |
| | | | If association | n is rejected-no-common-p | parameter, field-value=0x00 0x05. | | | |
| | | | If association | n is rejected–unknown = 0 | x00 0x06. | | | |
| | | | If association | n is rejected-unauthorized, | , field-value=0x00 0x07. | | | |

| | If association is rejected–unsupported-assoc-version, field-value=0x00 |
|-------|--|
| c. s | 0x08. elected-data-proto (DataProto: sequence of data-proto-id (DataProtold) and data- |
| р | roto-info(defined by data-proto-id)) |
| d. d | lata-proto-id |
| | i field- type = DataProtold |
| | i field-length = 2 bytes |
| | ield-value=0x50 0x79 (20601) |
| e. p | rotocol-version |
| | i field- type = Protocol Version |
| | i field-length = 4 bytes (BITS-32) |
| | field-value=0x80 0x00 0x00 0x00 |
| f. e | ncoding-rules |
| | i field-type = EncodingRules |
| | i 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. n | omenclature version |
| | i field- type = NomenclatureVersion |
| | i field-length = 4 bytes (BITS-32) |
| | <pre>ifield-value= Bit 0 must be set (nom-version1)</pre> |
| h. fu | unctional units |
| | i field-type = FunctionalUnits |
| | i field-length = 4 bytes (BITS-32) |
| | i field-value = |
| | Bit 0 must be 0 |
| | Bits 1 and 2 may be set |
| | The rest of the bits must not be set |
| i. s | ystem type |
| | i field- type = SystemType |
| | i field-length = 4 bytes (BITS-32) |
| | field-value = 0x80 0x00 0x00 0x00 (sys-type-manager) |
| j. s | ystem-id |
| | |
| | |
| | |
| k. d | lev-config-id |
| | |
| | 5 |
| | |
| _ | lata-req-mode-flags (DataReqModeCapab) |
| | |
| | |
| | |
| | manager response to data-req-mode-flags is always 0. |

| Notes | Value fo | r 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. |
| | | □ field-value = 0x00 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field- type = INT-U8 |
| | n. | data-req-init-manager-count (DataReqModeCapab) |
| | | □ field-value = 0x00 |
| | | $\Box field-length = = 1 \text{ byte}$ |
| | | □ field- type = INT-U8 |
| | m. | data-req-init-agent-count (DataReqModeCapab) |

| TP ld | | TP/PLT/MAN/CLASS/INR/BV-001 | | | | | |
|------------------------------------|-------------------|--|---|---|--|---|--|
| TP label | | Configuration Event Report. INR monitor standard configuration 1800 | | | | | |
| Coverage Spec Testable items | | [IEEE 11073-10418] | | | | | |
| | | Co | nfProc 4; | Μ | MDSEvents 2;M | ObjAccServ 5;M | |
| | Spec | [ISO/IEEE 11073-20601A] | | | | | |
| | Testable items | ConfEventRep 18;M | | | | | |
| Applicabilit | у | C_ | MAN_OX | (P_000 AND C_MA | N_OXP_067 | | |
| Initial condi | ition | 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 | | 1. 2. If th 3. 4. | dev-cor The ma a. Re a a c c c c c c c c c c c c c c c c c | nfig-id set to 0x07 0 unager under test re sult field- type = INT- field-length =2 by field-value = 0x00 of the association r | U16 rtes 0 0x00 (accepted) or 0x00 0x0 response was "accepted-unkno s a configuration event report y nust respond with: | g 1800) sponse, the field of interest is: 3 (accepted-unknown-config) | |
| | | | | field-value =0xE7 roke-id field- type = INT- field-length =2 by | ′ 0x00 (PrstAdpu) U16 | d of the simulated agent's | |

| | 1 | |
|--------------------|---------|---|
| | c. | Obj-Handle: |
| | | □ field- type = HANDLE |
| | | □ field-length =2 bytes |
| | | $\Box field-value = 0x00 \ 0x00$ |
| | 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 ur | til the operating state is reached in both cases. |
| | 5. Th | e simulated agent sends a fixed event report with one INR measurement. |
| Pass/Fail criteria | | e manager under test must respond either to the association request with an ccepted" message or to the Configuration Event Report with an "accepted-config". |
| | • Th | e measurement is correctly presented. |
| Notes | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/INR/BV-002 Configuration Event Report. Glucose Meter standard configuration 1801 | | | | |
|-------------------|-------------------|--|---------------|----------------|--|----------|
| | | | | | | Coverage |
| | Testable items | ConfProc 4;M | MDSEvents 2;M | ObjAccServ 5;M | | |
| | Spec | [ISO/IEEE 11073-20601A] | | | | |
| | Testable items | ConfEventRep 18;M | | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | | |
| 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 | | The simulated agent test sends an association request to the manager under test with dev-config-id set to 0x07 0x09 (INR monitor – Std Config 1801). | | | | |
| | | 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 | | | | |

| Notes | |
|--------------------|---|
| | The measurement is correctly presented. |
| 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". |
| | 5. The simulated agent sends a fixed event report with one INR measurement and other fixed event report with Control Solution measurement. |
| | Wait until the operating state is reached in both cases. |
| | accepted-config: 0x00 0x00 |
| | ConfigReportRsp.config-result: One of: |
| | ConfigReportRsp.config-report-id: it must be the same as config-report-id of th simulated agent's message |
| | Event-replay-info.length (2 bytes) |
| | f. The following six bytes indicate: |
| | field-value= MDC_NOTI_CONFIG |
| | $\Box field-length = 2 \text{ bytes}$ |
| | e. Event-type: |
| | □ field-value: 0xXX 0xXX |
| | □ field-length =4 bytes |
| | □ field- type = INT-U32 |
| | d. Event-time: |
| | □ field-value = 0x00 0x00 |
| | □ field-length =2 bytes |
| | field- type = HANDLE |
| | c. Obj-Handle: |
| | field-value = it must be the same as the invoke-id of the simulated agent's message. |
| | □ field-length =2 bytes |
| | □ field- type = INT-U16 |
| | b. Invoke-id |
| | □ field-value =0xE7 0x00 (PrstAdpu) |
| | $\Box field-length = 2 \text{ bytes}$ |
| | a. APDU Type |
| | 4. The manager under test must respond with: |
| | The simulated agent sends a configuration event report with config-report-id set to 0x06 0xA5. |
| | If the result of the association response was "accepted-unknown-config" |

| 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] | | [ISO/IEEE 11073-20601A] | | |
| | Testable items | CommonCharac 4;M | | |

| | Spec | [IEEE 11073-10418] | | | |
|--|-------------------|--|--|--|--|
| | Testable items | ComChar 2; M | | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_067 | | | | | |
| Initial conditi | on | The manager under test is in the operating state. | | | |
| Test procedure | | 1. The simulated agent sends a Confirmed variable event report: | | | |
| | | a. ScanReportInfoVar. obs_scan_var: | | | |
| | | Count =2 | | | |
| | | <pre>D Length = 856 ObservationScan ::= { obj-handle: 1 attributes: AttributeList ::= { AVA-Type ::= { 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 } }</pre> | | | |
| | | 2. Check the response of the manager under test. | | | |
| The simulated agent sends a confirmed fixed format event report wir measurement. | | 5 | | | |
| | | 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 report". | | 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 | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 AND C_MAN_OXP_003 | | | |

| Initial condition | The manager under test is in the operating state. |
|--------------------|---|
| Test procedure | 1. The simulated agent sends a Confirmed variable event report: |
| | a. ScanReportInfoVar. obs_scan_var: |
| | \Box Count = 2 |
| | <pre>D 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 } } } }</pre> |
| | 2. Check the response of the manager under test. |
| | 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 label | | TP/PLT/MAN/CLASS/INR/BV-005 INR Attribute-Value-Map. Order change | | | |
|-------------------|-------------------|---|--|--|--|
| | | | | | |
| | Testable items | INR 10; M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| 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_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. | | | |

| - | | |
|-------|--|---|
| | The simulat | ed agent waits until it receives a confirmation. |
| | Send a conf | irmed fixed format event report with the date first followed by an INR value. |
| | The simulat | ed agent waits until it receives a confirmation. |
| | The simulat | ed agent sends an association release request (normal). |
| | The simulat | ed agent waits until there is an association release response. |
| | | ed agent sends an association request using the same standard n that was used previously. |
| |). If the manag unknown-co | ger under test responds with association request response with "accepted- nfig", then |
| | | nulated agent sends the confirmed configuration event report with the d configuration. |
| | | nulated agent waits until there is a confirmation to the configuration event hat was sent. |
| | attribute-val | ed agent sends a fixed event report following the standard configuration ue-format (MDC_ATTR_NU_VAL_OBS_BASIC, then &_TIME_STAMP_BO). The observation should be a reasonable INR |
| | 2. The simulated agent waits until it receives a confirmation. | |
| | | and 12 verify that the manager under test is able to accept the data applies the correct bytes to the correct attributes (e.g. if there is a UI, verify asurement and date are displayed properly). |
| | | and 12 verify that the manager under test uses INR unit as the unit code for ement report (or reports the proper value after conversion to another unit |
| | manager us | and 12 verify that if the manager utilizes a date / time stamp, then the es a time stamp derived from the observation's time stamp (i.e. the actual may have occurred sometime in the past). |
| | | nated, it is necessary to be careful about sending these messages back to he ability to look at things like an UI may require that there be pauses for ification. |
| Notes | | |
| | | |

| TP Id TP label | | TP/PLT/MAN/CLASS/INR/BV-006 | | | |
|-------------------|-------------------|---|--|--|--|
| | | INR Attribute-Value-Map. Adding additional attributes to the Attribute-Value-Map | | | |
| Coverage Spec | | [IEEE 11073-10418] | | | |
| | Testable items | INR 10;M | | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| 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). | | | |

| | 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. 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 Id TP label | | TP/PLT/MAN/CLASS/INR/BV-007 INR Unit-Code. Use default INR units – variable format observation | | | |
|--------------------|-------------------|---|--|--|---------------|
| | | | | | Coverage Spec |
| | Testable items | INR 8;M | | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| 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 unit. 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 Id TP label | | TP/PLT/MAN/CLASS/INR/BV-008 Special values. Not a number – fixed format (Std Config 1800) | | |
|-------------------|-------------------|--|--|--|
| | | | | |
| | Testable items | INR 10; M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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 a "—" 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-009 | | | |
|---|-------------------|--|--|--|--|
| TP label | | Special values. Not a number – variable format (Std Config 1800) | | | |
| Coverage | Spec | [IEEE 11073-10418] | | | |
| | Testable items | INR 20; R | | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_067 | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| 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) | | Special values. Not at this resolution – fixed format (Std Config 1800) | | | | |
| Coverage | Spec | [IEEE 11073-10418] | | | | |
| | Testable items | INR 10; M | | | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | | |
| 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 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/INR/BV-011 | | |
|---|---------------------------------|---|--|--|
| TP label Special values. Not at this resolution – variable format (Std Config 1800) | | Special values. Not at this resolution – variable format (Std Config 1800) | | |
| Coverage | Spec | [IEEE 11073-10418] | | |
| | Testable items | INR 20; R | | |
| Applicabilit | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| 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) | | Special values. Positive infinity – fixed format (Std Config 1800) | | |
| Coverage Spec | | [IEEE 11073-10418] | | |
| | Testable items | INR 10; M | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_067 | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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, [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 Id TP/PLT/MAN/CLASS/INR/BV-013 | | | | |
|---|-------------------|---------------------------------|--|--|
| TP label Special values. Positive infinity – variable format (Std Config 1800) | | 800) | | |
| Coverage | Spec | [IEEE 11073-10418] | | |
| | Testable items | INR 20; R | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |

| 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 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-014 | | |
|--|-------------------|---|--|--|
| TP label | | Special values. Negative infinity – fixed format (Std Config 1800) | | |
| Coverage | Spec | [IEEE 11073-10418] | | |
| | Testable items | INR 10; M | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_067 | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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. | | 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 | | | |
| Applicability C_MAN_OXP_000 AND C_MAN_OXP_067 | | | | | |
| 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-016 | | |
|--|-------------------|---|--|--|
| TP label | | Special values. Reserved – fixed format (Std Config 1800) | | |
| Coverage Spec [IEEI | | [IEEE 11073-10418] | | |
| | Testable items | INR 10; M | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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. | | 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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 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. | | 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 | | | |
| Applicability | / | C_MAN_OXP_000 AND C_MAN_OXP_067 | | | |
| Initial condi | tion | 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 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. | | | |
| | | 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 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 ld | | 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 | | |
| Applicability | 1 | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| Initial condit | 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 procedure | | 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. 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 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 label | | TP/PLT/MAN/CLASS/INR/BV-020 Control Calibration Unit-Code. Use default INR units – variable format observation | | |
|--------------------|-------------------|--|---------------------------|---|
| | | | | |
| | Testable items | CtrlCal 6;M | | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| Initial condition | | The simulated agent and standard configuration. | I the manager under te | st are in the operating state using the |
| 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 | | units to the observat | ion (e.g. if there is a U | o accept the data properly and applies INR I, verify that the measurement and date are ed to a different set of units). |

| Notes | |
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| TP ld | | 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 | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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. | | This test case has been considered as an implicit test case. | | |

| TP ld | | TP/PLT/MAN/CLASS/INR/BV-022 | | |
|--------------------|-------------------|---|--|--|
| TP label | | Special values. Not at this resolution – fixed format (Std Config 1801) | | |
| Coverage | Spec | [IEEE 11073-10418] | | |
| | Testable items | CtrlCal 7; M | | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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 ld | | TP/PLT/MAN/CLASS/INR/BV-023 |
|--|--|--|
| TP label Special values. Positive infinity – fixed format (Std Config 1801) | | Special values. Positive infinity – fixed format (Std Config 1801) |
| Coverage Spec | | [IEEE 11073-10418] |

| | Testable items | CtrlCal 7; M | | |
|--------------------|-------------------|--|--|--|
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| Initial condit | ion | 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 | | |
| Applicabilit | y | C_MAN_OXP_000 AND C_MAN_OXP_067 | | |
| 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 ld | | 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 |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 |
| 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 | Thi | s 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 |
| Applicabilit | У | C_MAN_OXP_000 AND C_MAN_OXP_067 |
| 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 | |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 | |
| 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 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-028 |
|--------------------|-------------------|--|
| TP label | | Special values. Positive infinity – variable format (Std Config 1801) |
| Coverage | Spec | [IEEE 11073-10418] |
| | Testable items | CtrlCal 13; R |
| Applicability | | C_MAN_OXP_000 AND C_MAN_OXP_067 |
| 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 ld | | 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 | |
| Applicabilit | у | C_MAN_OXP_000 AND C_MAN_OXP_067 | |
| 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 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-030 |
|----------|-------------------|--|
| TP label | | Special values. Reserved – variable format (Std Config 1801) |
| Coverage | Spec | [IEEE 11073-10418] |
| | Testable items | CtrlCal 13; R |

| Applicability | C_MAN_OXP_000 AND C_MAN_OXP_067 |
|--------------------|--|
| 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 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. |

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