

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

H.845.15

(04/2017)

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 system: Personal Health Devices interface Part 50: Sleep apnoea breathing therapy equipment

Recommendation ITU-T H.845.15

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Recommendation ITU-T H.845.15

Conformance of ITU-T H.810 personal health system: Personal Health Devices interface Part 5O: Sleep apnoea breathing therapy equipment

Summary

Recommendation ITU-T H.845.15 provides a test suite structure (TSS) and the test purposes (TP) for sleep apnoea breathing therapy equipment in the Personal Health Devices interface, based on the requirements defined in the Recommendations of the ITU-T H.810 sub-series, of which Recommendation ITU-T H.810 (2016) is the base Recommendation. The objective of this test specification is to provide a high probability of interoperability at this interface.

Recommendation ITU-T H.845.15 is a transposition of Continua Test Tool DG2016, Test Suite Structure & Test Procedures, Personal Health Devices Interface; Part 5O: Device Specializations. Personal Health Device (Sleep Apnoea Breathing Therapy Equipment, SABTE) (Version 1.1, 2016-09-20).

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*
1.0	ITU-T H.845.15	2015-11-29	16	11.1002/1000/12678
2.0	ITU-T H.845.15	2016-07-14	16	11.1002/1000/12952
3.0	ITU-T H.845.15	2017-04-13	16	11.1002/1000/13232

Keywords

Conformance testing, Continua Design Guidelines, e-health, IEEE 11073 device specialization, ITU-T H.810, personal area network, personal connected health devices, Personal Health Devices interface, sleep apnoea breathing therapy equipment, touch area network.

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

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The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

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

Introduction

This Recommendation is the transposition of Continua Test Tool DG2016, Test Suite Structure & Test Purposes, Personal Health Devices Interface; Part 5O: Device Specializations. Personal Health Device (Sleep Apnoea Breathing Therapy Equipment -SABTE-) (Version 1.1, 2016-09-20), that was developed by the Personal Connected Health Alliance. The table below shows the revision history of this test specification; it may contain versions that existed before transposition.

Version	Date	Revision history
1.0	2015-07-01	Initial release for Test Tool DG2015 based on the requirements in [b-ITU-T H.810 (2015)]/[b-CDG 2015].
1.1	2016-09-20	Initial release for Test Tool DG2016. This uses "TSS&TP_DG2015_PLT_PART_5O_v1.0.doc" as a baseline and adds new features included in [ITU-T H.810 (2016)]/[b-CDG 2016]

Recommendation ITU-T H.845.15

Conformance of ITU-T H.810 personal health system: Personal Health Devices interface Part 5O: Sleep apnoea breathing therapy equipment

1 Scope

The scope of this Recommendation¹ is to provide a test suite structure (TSS) and the test purposes (TP) for the Personal Health Devices interface based on the requirements defined in the Continua Design Guidelines (CDG) [ITU-T H.810 (2016)]. The objective of this test specification is to provide a high probability of interoperability at this interface.

The TSS and TP for the Personal Health Devices interface have been divided into the parts specified below. This Recommendation covers Part 5, subpart 5O.

- Part 1: Optimized exchange protocol. Personal Health Device
- Part 2: Optimized exchange protocol. Personal Health Gateway
- Part 3: Continua design guidelines. Personal Health Device
- Part 4: Continua design guidelines. Personal Health Gateway
- Part 5: Device specializations. Personal Health Devices interface. This document is divided into the following 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
 - Part 5K: Peak expiratory flow monitor
 - Part 5L: Body composition analyser
 - Part 5M: Basic electrocardiograph
 - Part 5N: International normalized ratio monitor
 - **Part 5O: Sleep apnoea breathing therapy equipment (SABTE)**
 - Part 5P: Continuous glucose monitor (CGM)

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

- Part 6: Device specializations. Personal Health Gateway
- Part 7: Continua Design Guidelines. BLE Personal Health Device
- Part 8: Continua Design Guidelines. BLE Personal Health Gateway
- Part 9: Personal Health Devices Transcoding Whitepaper. Personal Health Devices
- Part 10: Personal Health Devices Transcoding Whitepaper. Personal Health Gateway

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 (2016)] | Recommendation ITU-T H.810 (2016), <i>Interoperability design guidelines for personal health systems</i> . |
| [ITU-T H.811] | Recommendation ITU-T H.811 (2015), <i>Interoperability design guidelines for personal health systems: TAN/PAN/LAN interface</i> . |
| [ITU-T H.812] | Recommendation ITU-T H.812 (2015), <i>Interoperability design guidelines for personal health systems: WAN interface</i> . |
| [ITU-T H.812.1] | Recommendation ITU-T H.812.1 (2015), <i>Interoperability design guidelines for personal health systems: WAN interface: Observation upload</i> . |
| [ITU-T H.812.2] | Recommendation ITU-T H.812.2 (2015), <i>Interoperability design guidelines for personal health systems: WAN interface: Questionnaires</i> . |
| [ITU-T H.812.3] | Recommendation ITU-T H.812.3 (2015), <i>Interoperability design guidelines for personal health systems: WAN interface: Capability exchange</i> . |
| [ITU-T H.812.4] | Recommendation ITU-T H.812.4 (2015), <i>Interoperability design guidelines for personal health systems: WAN interface: Authenticated persistent session</i> . |
| [ITU-T H.813] | Recommendation ITU-T H.813 (2015), <i>Interoperability design guidelines for personal health systems: HRN interface</i> . |
| [ISO/IEEE 11073-10424] | ISO/IEEE 11073-10424-2016, <i>Health informatics – Personal health device communication – Part 10424: Device specialization – Sleep Apnoea Breathing Therapy Equipment (SABTE)</i> .
https://www.iso.org/standard/68906.html |
| [ISO/IEEE 11073-20601-2015A] | 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.
https://www.iso.org/standard/54331.html with
https://www.iso.org/standard/63972.html |

[ISO/IEEE 11073-20601-2016C] ISO/IEEE 11073-20601:2016, *Health informatics – Personal health device communication – Part 20601: Application profile – Optimized exchange protocol*, including ISO/IEEE 11073-20601:2016/Cor.1:2016.
<https://www.iso.org/standard/66717.html> with
<https://www.iso.org/standard/71886.html>

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 agent [ISO/IEEE 11073-20601-2016C]: A node that collects and transmits personal health data to an associated manager.

3.1.2 manager [ISO/IEEE 11073-20601-2016C]: 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
CDG	Continua Design Guidelines
CGM	Continuous Glucose Monitor
DUT	Device Under Test
GUI	Graphical User Interface
INR	International Normalized Ratio
IP	Insulin Pump
IUT	Implementation Under Test
MDS	Medical Device System
NFC	Near Field Communication
PAN	Personal Area Network
PCHA	Personal Connected Health Alliance
PCT	Protocol Conformance Testing
PCO	Point of Control and Observation
PCHA	Personal Connected Health Alliance
PHD	Personal Health Device
PHDC	Personal Healthcare Device Class
PHG	Personal Health Gateway
PICS	Protocol Implementation Conformance Statement

PIXIT	Protocol Implementation extra Information for Testing
SABTE	Sleep Apnoea Breathing Therapy Equipment
SCR	Static Conformance Review
SDP	Service Discovery Protocol
SOAP	Simple Object Access Protocol
TCWG	Test and Certification Working Group
TP	Test Purpose
TSS	Test Suite Structure
USB	Universal Serial Bus
WDM	Windows Driver Model

5 Conventions

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

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

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

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

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

CDG release	Transposed as	Version	Description	Designation
2016 plus errata	[ITU-T H.810 (2016)]	6.1	Release 2016 plus errata noting all ratified bugs [b-CDG 2016].	–
2016	–	6.0	Release 2016 of the CDG including maintenance updates of the CDG 2015 and additional guidelines that cover new functionalities.	Iris
2015 plus errata	[b-ITU-T H.810 (2015)]	5.1	Release 2015 plus errata noting all ratified bugs [b-CDG 2015]. The 2013 edition of H.810 is split into eight parts in the H.810-series.	–
2015	–	5.0	Release 2015 of the CDG including maintenance updates of the CDG 2013 and additional guidelines that cover new functionalities.	Genome
2013 plus errata	[b-ITU-T H.810 (2013)]	4.1	Release 2013 plus errata noting all ratified bugs [b-CDG 2013].	–

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

CDG release	Transposed as	Version	Description	Designation
2013	–	4.0	Release 2013 of the CDG including maintenance updates of the CDG 2012 and additional guidelines that cover new functionalities.	Endorphin
2012 plus errata	–	3.1	Release 2012 plus errata noting all ratified bugs [b-CDG 2012].	–
2012	–	3.0	Release 2012 of the CDG including maintenance updates of the CDG 2011 and additional guidelines that cover new functionalities.	Catalyst
2011 plus errata	–	2.1	CDG 2011 integrated with identified errata.	–
2011	–	2.0	Release 2011 of the CDG including maintenance updates of the CDG 2010 and additional guidelines that cover new functionalities [b-CDG 2011].	Adrenaline
2010 plus errata	–	1.6	CDG 2010 integrated with identified errata	–
2010	–	1.5	Release 2010 of the CDG with maintenance updates of the CDG Version 1 and additional guidelines that cover new functionalities [b-CDG 2010].	1.5
1.0	–	1.0	First released version of the CDG [b-CDG 1.0].	–

6 Test suite structure (TSS)

The test purposes (TPs) for the Personal Health Devices interface have been divided into the main subgroups specified below. Annex A describes the TPs for subgroup 1.3.15 (shown in bold):

- Group 1: Personal Health Device (PHD)
 - 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: IEEE 20601 Optimized exchange protocol (OXP)

- Subgroup 1.2.1: PHD domain information model (DIM)
- Subgroup 1.2.2: PHD service model (SER)
- Subgroup 1.2.3: PHD communication model (COM)
- Group 1.3: Devices class specializations (CLASS)
 - Subgroup 1.3.1: Weighing scales (WEG)
 - Subgroup 1.3.2: Glucose meter (GL)
 - Subgroup 1.3.3: Pulse oximeter (PO)
 - Subgroup 1.3.4: Blood pressure monitor (BPM)
 - Subgroup 1.3.5: Thermometer (TH)
 - Subgroup 1.3.6: Cardiovascular (CV)
 - Subgroup 1.3.7: Strength (ST)
 - Subgroup 1.3.8: Activity hub (HUB)
 - Subgroup 1.3.9: Adherence monitor (AM)
 - Subgroup 1.3.10: Insulin pump (IP)
 - 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)
 - **Subgroup 1.3.15: Sleep apnoea breathing therapy equipment (SABTE)**
 - Subgroup 1.3.16: Continuous glucose monitor (CGM)
- Group 1.4: Personal health device transcoding whitepaper (PHDTW)
 - Subgroup 1.4.1: Whitepaper general requirements (GEN)
 - Subgroup 1.4.2: Whitepaper thermometer requirements (TH)
 - Subgroup 1.4.3: Whitepaper blood pressure requirements (BPM)
 - Subgroup 1.4.4: Whitepaper heart rate requirements (HR)
 - Subgroup 1.4.5: Whitepaper glucose meter requirements (GL)
 - Subgroup 1.4.6: Whitepaper weight scale requirements (WS)
 - Subgroup 1.4.7: Whitepaper pulse oximeter requirements (PLX)
 - Subgroup 1.4.8: Whitepaper continuous glucose monitoring requirements (CGM)

– Group 2: Personal Health Gateway (PHG)

- 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: IEEE 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)
 - Subgroup 2.3.11: Peak flow (PF)
 - Subgroup 2.3.12: Body composition analyser (BCA)
 - Subgroup 2.3.13: Basic electrocardiograph (ECG)
 - Subgroup 2.3.14: International normalized ratio (INR)
 - Subgroup 2.3.15: Sleep apnoea breathing therapy equipment (SABTE)
 - Subgroup 2.3.16: Continuous glucose monitor (CGM)
- 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)
 - Subgroup 2.4.6: Whitepaper weight scale requirements (WS)
 - Subgroup 2.4.7: Whitepaper pulse oximeter requirements (PLX)
 - Subgroup 2.4.8: Whitepaper continuous glucose monitoring requirements (CGM)

7 Electronic attachment

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

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

Annex A

Test purposes

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

A.1 TP definition conventions

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

- **TP Id:** This is a unique identifier (TP/<TT>/<DUT>/<GR>/<SGR>/<XX> – <NNN>). It is specified according to the naming convention defined below:
 - Each test purpose identifier is introduced by the prefix "TP".
 - <TT>: This is the test tool that will be used in the test case.
 - PAN: Personal area network (Bluetooth or USB)
 - LAN: Local area network (ZigBee)
 - PAN-LAN: Personal area network (Bluetooth or USB) – Local area network (ZigBee)
 - LP-PAN: Low power personal area network (Bluetooth Low Energy)
 - TAN: Touch area network (NFC)
 - PLT: Personal area network (Bluetooth or USB) – Local area network (ZigBee) – Touch area network (NFC)
 - <DUT>: This is the device under test.
 - PHD: Personal Health Device
 - PHG: Personal Health Gateway
 - <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 the testable items to be checked by the TP.
- **Test purpose:** This is a description of the requirements to be tested.
- **Applicability:** This contains the PICS items that define if the test case is applicable or not for a specific device. When a TP contains an "ALL" in this field it means that it applies to the device under test within that scope of the test (specialization, transport used, etc.).
- **Other PICS:** This contains additional PICS items (apart from the PICS specified in the Applicability row) which are used within the test case implementation and can modify the final verdict. When this row is empty, it means that only the PICS specified in the Applicability row are used within the test case implementation.
- **Initial condition:** This indicates the state to which the DUT needs to be moved at the beginning of TC execution.

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

A.2 Subgroup 1.3.15: Sleep apnoea breathing therapy equipment (SABTE)

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-000_A		
TP label		Get MDS Object for SABTE specialization: Mandatory, Conditional and Optional Attributes		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	MDSSABTE Atr 1; M	MDSSABTE Atr 3; M	MDSSABTE Atr 5; M
		MDSSABTE Atr 6; M	MDSSABTE Atr 7; M	
Test purpose		Check that: The MDS Object contains the attributes specified for a SABTE Personal Health Device (PHD)		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162		
Other PICS		C_AG_OXP_159, C_AG_OXP_160, C_AG_OXP_161, C_AG_OXP_181		
Initial condition		The simulated PHG and the PHD under test are in the Operating state.		
Test procedure		1. The simulated PHG issues "roiv-cmip-get" command with handle set to 0 (to request for MDS object) and attribute-id-list set to 0 to indicate all attributes. 2. The PHD responds with a "rors-cmip-get" service message in which the attribute-list contains a list of all implemented attributes of the MDS object: MDS attributes: a. Attribute System-Type must not be present. b. Mandatory attribute System-Type-Spec_List ☐ attribute-id = MDC_ATTR_SYS_TYPE_SPEC_LIST ☐ attribute-type = TypeVerList ☐ attribute-value.length = 4 bytes for each configuration supported ☐ attribute-value = {MDC_DEV_SPEC_PROFILE_SABTE, 1} and • IF C_AG_OXP_161 THEN {MDC_DEV_SUB_SPEC_PROFILE_CPAP,1} • IF C_AG_OXP_160 THEN {MDC_DEV_SUB_SPEC_PROFILE_CPAP_AUTO,1} • IF C_AG_OXP_159 THEN {MDC_DEV_SUB_SPEC_PROFILE_BPAP,1} c. Mandatory attribute System-model ☐ attribute-id = MDC_ATTR_ID_MODEL (0x09 0x28) ☐ attribute-type = SystemModel ☐ attribute-value.length = <Variable> ☐ attribute-value = • Manufacturer = Check against PIXIT I_AG_OXP_003 • Model = Check against PIXIT I_AG_OXP_004 d. Mandatory attribute Dev-Configuration-Id ☐ IF NOT C_AG_OXP_181 THEN attribute-value = 0x0960 (2400) ☐ IF C_AG_OXP_181 THEN attribute-value = <between 0x4000 and 0x7FFF > e. Mandatory attribute Production-Specification ☐ attribute-id = MDC_ATTR_ID_PROD_SPECN		

	☐ attribute-type = ProductionSpec ☐ attribute-value.length = <Variable>
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-000_B		
TP label		MDS Configuration objects events for SABTE specialization		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	MDSEvents 1; M		
Test purpose		Check that: SABTE PHD sends the MDS-Configuration-Event using a Confirmed event report and it includes the event-info ConfigReport		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162		
Other PICS		C_AG_OXP_010, C_AG_OXP_181		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG: a. APDU Type ☐ field- type = PrstApdu ☐ field-length =2 bytes ☐ field-value =0xE7 0x00 b. invoke-id ☐ field- type = InvokeIDType ☐ field-length =INT-U16 ☐ field- value =<Not relevant for this test> c. message ☐ field- type = roiv-cmip-confirmed-event-report ☐ field-length =two bytes ☐ field- value =0x01 0x01 (EventReportArgumentSimple) d. obj-handle (EventReportArgumentSimple) ☐ field- type = HANDLE ☐ field-length =INT-U16 e. event-time (EventReportArgumentSimple) ☐ field- type = Relative Time ☐ field-length =INT-U32 ☐ field-value = • IF NOT C_AG_OXP_010 THEN value = 0xFF 0xFF 0xFF 0xFF f. event-type (EventReportArgumentSimple)		

	☐ field- type = OID-Type ☐ field-length =INT-U16 ☐ field- value=0x0D 0x1C (MDC_NOTI_CONFIG) g. config-report-id (ConfigReport) ☐ field- type = ConfigId ☐ field-length = INT-U16 ☐ field value = <It matches the tested configuration> • IF NOT C_AG_OXP_181 THEN attribute-value = 0x 0960 (2400) • IF C_AG_OXP_181 THEN <between 0x40 0x00 and 0x7F 0xFF > for extended configuration. h. obj-class (ConfigReport → ConfigObjectList (ConfigObject)) ☐ field- type = OID-Type ☐ field-length = INT-U16 ☐ field- value = At least one MDC_MOC_VMO_METRIC_NU
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-000_C		
TP label		MDS objects events for SABTE specialization		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	MDSEvents 3; M	MDSEvents 4; M	MDSEvents 5; M
		MDSEvents 6; M	MDSEvents 7; M	MDSEvents 8; M
		MDSEvents 9; M	MDSEvents 10; M	ObjAccServ 1; M
Test purpose		Check that: Agent-initiated mode is supported for measurement data transmission and all types of event reports are used in confirmed or unconfirmed mode [AND] The PHD sends the MDS-Dynamic-Data-Update-Fixed using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoFixed [OR] The PHD sends the MDS-Dynamic-Data-Update-Var using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoVar [OR] The PHD sends the MDS-Dynamic-Data-Update-MP-Fixed using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoMPFixed [OR] The PHD sends the MDS-Dynamic-Data-Update-MP-Var using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoMPVar		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND (C_AG_OXP_182 OR C_AG_OXP_183 OR C_AG_OXP_184 OR C_AG_OXP_189)		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Operating state.		

Test procedure	- Take measurements for every supported object in the PHD under test. - Wait to receive every event reports and check: - APDU Type ☐ field- type = Event Report ☐ field-length = 2 bytes ☐ field- value = 0x01 0x00 (EventReportArgumentSimple, unconfirmed) OR 0x01 0x01 (EventReportArgumentSimple, confirmed) This field identifies the type of message sent by the PHD for the unconfirmed event configuration, roiv-cmip-event-report, OR for the confirmed event configuration, roiv-cmip-confirmed-event-report.
Pass/Fail criteria	Check that every received report is one of the following confirmed or unconfirmed Data APDU. - MDC_NOTI_SCAN_REPORT_FIXED - MDC_NOTI_SCAN_REPORT_MP_FIXED - MDC_NOTI_SCAN_REPORT_VAR - MDC_NOTI_SCAN_REPORT_MP_VAR
Notes	

TP Id	TP/PLT/PHD/CLASS/SABTE/BV-001		
TP label	Objects for SABTE specialization - Standard Configuration (2400)		
Coverage	Spec	[ISO/IEEE 11073-10424]	
	Testable items	DPU 1; M	DFG 1; M
		TherMode 1; M	DevMode 1; M
Test purpose	Check that: Duration of Patient Use Numeric object with Type MDC_SABTE_TIME_PD_USAGE_TOTAL is supported by a SABTE PHD for Standard Configuration 2400 (0x0960). [AND] Duration of Flow Generation Numeric object with Type MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL is supported by a SABTE PHD for Standard Configuration 2400 (0x0960). [AND] Device Mode Set Enumeration object with Type MDC_SABTE_MODE_DEV_SET is supported by a SABTE PHD for Standard Configuration 2400 (0x0960). [AND] Therapy Mode Set Enumeration object with Type MDC_SABTE_MODE_THERAPY_SET is supported by a SABTE PHD for Standard Configuration 2400 (0x0960).		
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT_C_AG_OXP_181)		
Other PICS			
Initial condition	The simulated PHG and the PHD are in the Unassociated state.		
Test procedure	- The simulated PHG receives an association request from the PHD under test. - The simulated PHG responds with a result = accepted-unknown-config. - The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG.		

	4. Check that the field Dev-Config-Id is set to 0x0960 (2400); if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends a standard configuration, check that: IF (Dev-Config-Id = 0x0960) THEN Attribute-List: a. attribute-value (ConfigReport → ConfigObjectList (ConfigObject) → Attribute List), this value depends on the attribute Type. The values we have to check are: ☐ Duration of Patient Use numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58) ☐ Duration of Flow Generation numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54) ☐ Device Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_DEV_SET (0x56 0xFC) ☐ Therapy Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_THERAPY_SET (0x57 0x08)
Pass/Fail criteria	All checked values are as specified in the test procedure and no other object listed.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-002		
TP label		Objects for SABTE specialization - Extended Configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	DPU 1; M	DFG 1; M	AHI 1; O
		CAHI 1; O	TherPress 1; O	Leak 1; O
		RespRate 1; O	TidalVol 1; O	RespVol 1; O
		IER 1; O	SnorDur 1; O	CSR 1; O
		HumidLvl 1; O	RSPS 1; O	RDS 1; O
		PALS 1; O	PCPAP 1; C	PminAPAP 1; C
		PmaxAPAP 1; C	PIPAP 1; C	PEPAP 1; C
		RespSet 1; O	IERSet 1; O	TSS 1; O
		IPRS 1; O	TPWave 1; O	LeakWave 1; O
		AirWave 1; O	CompAn 2; O	EffAn 2; O
		PHDDM 2; O	DevMode 1; M	TherMode 1; M
		AutoSS 2; R	AutoSS 3; O	PAFS 2; R
		PAFS 3; O		
Test purpose		Check that: Duration of Patient Use and Duration of Flow Generation Numeric objects are supported by a SABTE PHD. [AND] Apnoea-Hypopnoea Index, Compound Apnoea-Hypopnoea Index, Therapy Pressure, Leakage, Respiratory Rate, Tidal Volume, Respiratory Minute Volume, I:E Ratio, Snoring		

	Duration, CSR Duration, Humidifier Level Set, Ramp Start Pressure Set, Ramp Duration Set, Pressure Adaption Level Set, P CPAP Set, Pmin APAP Set, Pmax APAP Set, P IPAP Set, P EPAP Set, Respiratory Rate Set, I:E Ratio Set, Trigger Sensitivity Set or Inspiration Pressure Rise Set numeric objects can be implemented by the vendor. [AND] Therapy Pressure Waveform, Leakage Waveform and Airflow Waveform RT-SA objects can be implemented by the vendor. [AND] Device Mode Set and Therapy Mode Set Enumeration objects are supported by a SABTE PHD. [AND] Compliance Annotations, Efficacy Annotations, PHD DM Status, Autostart/-stop Set and Pressure Adaption Freeze Set Enumeration objects can be implemented by the vendor.
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181
Other PICS	C_AG_SABTE_001, C_AG_SABTE_002, C_AG_SABTE_003, C_AG_SABTE_004, C_AG_SABTE_005, C_SABTE_006, C_AG_SABTE_007, C_AG_SABTE_008, C_AG_SABTE_009, C_AG_SABTE_010, C_AG_SABTE_011, C_AG_SABTE_012, C_AG_SABTE_013, C_AG_SABTE_014, C_AG_SABTE_015, C_SABTE_016, C_AG_SABTE_017, C_AG_SABTE_018, C_AG_SABTE_019, C_AG_SABTE_020, C_AG_SABTE_021, C_AG_SABTE_022, C_AG_SABTE_023, C_AG_SABTE_024, C_AG_SABTE_025, C_SABTE_026, C_AG_SABTE_027, C_AG_SABTE_028, C_AG_SABTE_029, C_AG_SABTE_030, C_AG_SABTE_031, C_AG_OXP_161, C_AG_OXP_160, C_AG_OXP_159
Initial condition	The simulated PHG and the PHD are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that: Attribute-List: a. attribute-value(ConfigReport → ConfigObjectList (ConfigObject)→Attribute List), this value depends on the attribute type. The values we have to check are: • Duration of Patient Use numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58) • Duration of Flow Generation numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54) • Device Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_DEV_SET (0x56 0xFC) • Therapy Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_THERAPY_SET (0x57 0x08) ❑ Any of these objects may be present, depending on the profile. • IF C_AG_SABTE_001 THEN Apnoea-Hypopnoea Index numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI_TOTAL (0x56 0xA8) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI_UNCLASS (0x56 0xAC) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI_OBSTRUC (0x56 0xB0) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI_CENT (0x56 0xB4). • IF C_AG_SABTE_002 THEN Compound Apnoea-Hypopnoea Index numeric Object is present → MDC_PART_PHD_DM (0x00 0x80),

	MDC_SABTE_AHI (0x56 0xA4). • IF C_AG_SABTE_003 THEN Therapy Pressure numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_INSTANT (0x57 0x4F) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_MIN (0x57 0x45) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_MAX (0x57 0x46) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_MEAN (0x57 0x47) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_P50 (0x57 0x4B) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_P90 (0x57 0x4D) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_P95 (0x57 0x4E). • IF C_AG_SABTE_004 THEN Leakage numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_INSTANT (0x57 0xDB) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_MIN (0x57 0xD1) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_MAX (0x57 0xD2) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_MEAN (0x57 0xD3) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_P50 (0x57 0xD7) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_P90 (0x57 0xD9) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK_P95 (0x57 0xDA). • IF C_AG_SABTE_005 THEN Respiratory Rate numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_INSTANT (0x57 0x8B) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_MIN (0x57 0x81) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_MAX (0x57 0x82) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_MEAN (0x57 0x83) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_P50 (0x57 0x87) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_P90 (0x57 0x89) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_P95 (0x57 0x8A). • IF C_AG_SABTE_006 THEN Tidal Volume numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_INSTANT (0x58 0x2B) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_MIN (0x58 0x21) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_MAX (0x58 0x22) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_MEAN (0x58 0x23) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_P50 (0x58 0x27) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_P90 (0x58 0x29) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_TIDAL_P95 (0x58 0x2A). • IF C_AG_SABTE_007 THEN Respiratory Minute Volume numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_INSTANT (0x58 0x03) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_MIN (0x57 0xF9) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_MAX (0x57 0xFA) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_MEAN (0x57 0xFB) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_P50 (0x57 0xFF) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_P90 (0x58 0x01) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_MINUTE_P95 (0x58 0x02). • IF C_AG_SABTE_008 THEN I:E Ratio numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_INSTANT (0x57 0xB3) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_MIN (0x57 0xA9) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_MAX (0x57 0xAA) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_MEAN (0x57 0xAB) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_P50 (0x57 0xAF) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_P90 (0x57 0xB1) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_P95 (0x57
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	0xB2). • IF C_AG_SABTE_009 THEN Snoring Duration numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_SNORING_TOTAL (0x56 0x64). • IF C_AG_SABTE_010 THEN CSR Duration numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_CSR_TOTAL (0x56 0x68). • IF C_AG_SABTE_011 THEN Humidifier Level Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_HUMID_STAGE_SET (0x56 0xCC) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_HUMID_TEMP_SET (0x56 0xD0) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_HUMID_HUM_SET (0x56 0xD4). • IF C_AG_SABTE_012 THEN Ramp Start Pressure Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_RAMP_START_SET (0x57 0x7C). • IF C_AG_SABTE_013 THEN Ramp Duration Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_RAMP_SET (0x56 0x78). • IF C_AG_SABTE_014 THEN Pressure Adaption Level Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_ADAPT_SET (0x56 0xE0) • IF C_AG_OXP_159 THEN Pressure Adaption Level Set numeric Object is NOT present • IF (C_AG_SABTE_015 OR C_AG_OXP_161) THEN P CPAP Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_CPAP_SET (0x57 0x5C) • IF (C_AG_OXP_160 OR C_AG_OXP_159) THEN P CPAP Set numeric Object is NOT present • IF (C_AG_SABTE_016 OR C_AG_OXP_160) THEN Pmin APAP Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_CPAP_AUTO_MIN_SET (0x57 0x60) • IF (C_AG_OXP_161 OR C_AG_OXP_159) THEN Pmin APAP Set numeric Object is NOT present • IF (C_AG_SABTE_017 OR C_AG_OXP_160) THEN Pmax APAP Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_CPAP_AUTO_MAX_SET (0x57 0x64) • IF (C_AG_OXP_161 OR C_AG_OXP_159) THEN Pmax APAP Set numeric Object is NOT present • IF (C_AG_SABTE_018 OR C_AG_OXP_159) THEN P IPAP Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_IPAP_SET (0x57 0x68) • IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN P IPAP Set numeric Object is NOT present • IF (C_AG_SABTE_019 OR C_AG_OXP_159) THEN P EPAP Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_EPAP_SET (0x57 0x6C) • IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN P EPAP Set numeric Object is NOT present • IF C_AG_SABTE_020 THEN Respiratory Rate Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RESP_RATE_SET (0x57 0xA4) • IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN Respiratory Rate Set numeric Object is NOT present • IF C_AG_SABTE_021 THEN I:E Ratio Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_RATIO_IE_SET (0x57
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	0xCC) • IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN I:E Ratio Set numeric Object is NOT present • IF C_AG_SABTE_022 THEN Trigger Sensitivity Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_TRIG_SENS_SET (0x56 0xD8) • IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN Trigger Sensitivity Set numeric Object is NOT present • IF C_AG_SABTE_023 THEN Inspiration Pressure Rise Set numeric Object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_INSP_PRESS_RISE_SET (0x56 0xDC) • IF C_AG_OXP_161 THEN Inspiration Pressure Rise Set numeric Object is NOT present • IF C_AG_SABTE_024 THEN Therapy Pressure Waveform RT-SA object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS (0x57 0x44) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_TARGET (0x57 0x58). • IF C_AG_SABTE_025 THEN Leakage Waveform RT-SA object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_VOL_LEAK (0x57 0xD0). • IF C_AG_SABTE_026 THEN Airflow Waveform RT-SA object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_FLOW_TOTAL (0x56 0x7C) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_FLOW_WO_PURGE (0x56 0x80) or MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_FLOW_RESP (0x56 0x84). • IF C_AG_SABTE_027 THEN Compliance Annotations enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PATT_COMPLIANCE_CLS (0x57 0x1C). • IF C_AG_SABTE_028 THEN Efficacy Annotations enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PATT EFFICACY_CLS (0x57 0x24). • IF C_AG_SABTE_029 THEN PHD DM Status enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_PHD_DM_DEV_STAT (0x4E 0x20). • IF C_AG_SABTE_030 THEN Autostart/-stop Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_AUTOSTARTSTOP_SET (0x56 0xF8). • IF C_AG_SABTE_031 THEN Pressure Adaption Freeze Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_ADAPT_FREEZE_SET (0x56 0xF4) • IF C_AG_OXP_159 THEN Pressure Adaption Freeze Set numeric Object is NOT present		
Pass/Fail criteria	All checked values are as specified in the test procedure.		
Notes			

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-003		
TP label		Duration of Patient Use Numeric Object - Standard configuration (2400)		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 2; M	NumObj 4; M	NumObj 6; R
		NumObj 8; M	NumObj 10; R	NumObj 12; R

		NumObj 14; R	NumObj 16; R	NumObj 18; R
		NumObj 20; M	NumObj 22; M	NumObj 24; R
		NumObj 26; O	NumObj 28; O	NumObj 30; C
		NumObj 32; R	NumObj 34; C	NumObj 36; C
		NumObj 38; R	NumObj 40; C	NumObj 42; C
		NumObj 44; C	NumObj 46; C	NumObj 48; C
		NumObj 50; C	NumObj 52; R	
		DPU 2; M	DPU 4; M	DPU 6; M
		DPU 8; M	DPU 10; M	DPU 12; R
		DPU 14; M		
Test purpose	Check that: The DPU Numeric object contains the attributes specified for Standard Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT C_AG_OXP_181)			
Other PICS				
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set to 0x0960 (2400); if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends a standard configuration, check that SABTE Object attributes are: a. Mandatory attribute Handle ☐ attribute-id = MDC_ATTR_ID_HANDLE ☐ attribute-type = HANDLE ☐ attribute-value = 0x00 0x01 b. Mandatory attribute Type ☐ IF (Dev-Config-Id = 0x0960): • attribute-id = MDC_ATTR_ID_TYPE • attribute-type = TYPE • attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58). c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 (mss-avail-intermittent(0)), must be set • Bit 1 (mss-avail-stored-data(1)), must be set			

	• Bit 2 (mss-upd-aperiodic(2)), must be set • Bit 3 (mss-msmt-aperiodic(3)), must be set • Bit 9 (mss-acc-agent-initiated(9)), must be set • The other bits have to be 0. d. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN e. Mandatory attribute Attribute-Value-Map ☐ attribute-id = MDC_ATTR_ATTRIBUTE_VAL_MAP ☐ attribute-type = AttrValMap (sequence of attribute-id(OID-Type) and attribute-length(INT-U16)) ☐ attribute-value.length=<variable> ☐ attribute-value= MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO f. No other attribute shall be present at configuration.
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-004		
TP label		Duration of Patient Use Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		DPU 5; M	DPU 7; M	DPU 9; M
		DPU 13; R		
Test purpose		Check that: The Duration of Patient Use Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test.		

2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke | Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG.
3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration.
4. Once the PHD under test sends an extended configuration, check that Duration of Patient Use Object attributes are:

NOTE – "Mandatory", "Recommended" and "Not Recommended" are attribute types defined in the 11073-20601 Optimized exchange protocol.
 - a. Mandatory attribute Type
 - ☐ attribute-id = MDC_ATTR_ID_TYPE
 - ☐ attribute-type = TYPE
 - ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) | MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58) or MDC_PART_PHD_DM (0x00 0x80) | MDC_SABTE_TIME_PD_USAGE_W_HUM (0x56 0x5C) or MDC_PART_PHD_DM (0x00 0x80) | MDC_SABTE_TIME_PD_USAGE_WO_HUM (0x56 0x60).
 - b. IF Not Recommended Supplemental-Types attribute is present
 - ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES
 - ☐ attribute-type = SupplementalTypeList
 - ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes
 - c. Mandatory attribute Metric-Spec-Small
 - ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL
 - ☐ attribute-type = MetricSpecSmall (BITS-16)
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value ≠ 0x00 0x00
 - Bit 0 must be set (mss-avail-intermittent(0))
 - Bit 1 must be set (mss-avail-stored-data(1))
 - Bit 2 must be set (mss-upd-aperiodic(2))
 - Bit 3 must be set (mss-msmt-aperiodic(3))
 - Bit 9 must be set (mss-acc-agent-initiated(9))
 - d. IF Not Recommended attribute Metric-Structure-Small is present
 - ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL
 - ☐ attribute-type = MetricStructureSmall
 - ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte (INT-U8) + ms-comp-no =1byte(INT-U8)))
 - e. IF Not Recommended attribute Measurement-Status is present
 - ☐ attribute-id = MDC_ATTR_MSMT_STAT
 - ☐ attribute-type = MeasurementStatus (BITS-16)
 - ☐ attribute-value.length =2 bytes
 - f. IF Not Recommended attribute Metric-Id is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO
 - ☐ attribute-type = OID-Type (INT-U16)
 - ☐ attribute-value.length= 2 bytes
 - g. IF Not Recommended attribute Metric-Id-List is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST

	☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 byte
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-005		
TP label		Apnoea-Hypopnoea Index Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R

		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		AHI 2; M	AHI 3; M	AHI 4; M
		AHI 5; R		
Test purpose	Check that: The Apnoea-Hypopnoea Index Numeric object contains the attributes specified for Extended Configuration			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_001			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Apnoea-Hypopnoea Index Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_AHI_TOTAL (0x56 0xA8) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_AHI_UNCLASS (0x56 0xAC) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_AHI_OBSTRUC (0x56 0xB0) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_AHI_CENT (0x56 0xB4). b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 14 must be set (mss-cat-calculation(14)) d. IF Not Recommended attribute Metric-Structure-Small is present			

	☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_EVT_PER_HR j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT
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	☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 byte
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-006		
TP label		Compound Apnoea-Hypopnoea Index Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		CAHI 2; M	CAHI 3; M	CAHI 4; M
		CAHI 5; M	CAHI 6; R	CAHI 7; R
		CAHI 8; R	CAHI 9; R	
Test purpose		Check that: The Compound Apnoea-Hypopnoea Index Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_002		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Compound Apnoea-Hypopnoea Index Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI (0x56 0xA4). b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList		

	☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes
c.	Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 14 must be set (mss-cat-calculation(14))
d.	IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))
e.	IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes
f.	IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes
g.	Mandatory attribute Metric-Id-List ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) ☐ attribute-value = MDC_SABTE_AHI_UNCLASS, then MDC_SABTE_AHI_OBSTRUC, then MDC_SABTE_AHI_CENTRAL.
h.	IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes
i.	Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_EVT_PER_HR
j.	IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes
k.	IF Recommended attribute Base-Offset-Time-Stamp is present

	☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Not Recommended attribute Simple-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_SIMP ☐ attribute-type = SimpleNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) o. IF Recommended attribute Compound-Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_CMPD_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValueCmp ☐ attribute-value.length = SFLOAT-Type (INT-U16) p. IF Not Recommended attribute Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS ☐ attribute-type = NuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) q. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 byte
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-007		
TP label		Therapy Pressure Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		

		TherPress 2; M	TherPress 3; M	TherPress 4; M
		TherPress 5; M		
Test purpose	Check that: The Therapy Pressure Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_003			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Therapy Pressure Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_INSTANT (0x57 0x4F) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_MIN (0x57 0x45) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_MAX (0x57 0x46) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_MEAN (0x57 0x47) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_P50 (0x57 0x4B) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_P90 (0x57 0x4D) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_P95 (0x57 0x4E) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length = <variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =			

	1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.

Notes				
TP Id		TP/PLT/PHD/CLASS/SABTE/BV-008		
TP label		Leakage Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		Leak 2; M	Leak 3; M	Leak 4; M
		Leak 5; M		
Test purpose		Check that: The Leakage Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_004		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Leakage Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_INSTANT (0x57 0xDB) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_MIN (0x57 0xD1) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_MAX (0x57 0xD2) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_MEAN (0x57 0xD3) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_P50 (0x57 0xD7) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_P90 (0x57 0xD9) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_LEAK_P95 (0x57 0xDA). b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes		

- c. Mandatory attribute Metric-Spec-Small
 - ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL
 - ☐ attribute-type = MetricSpecSmall (BITS-16)
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value $\neq$ 0x00 0x00
 - Bit 0 must be set (mss-avail-intermittent(0))
 - Bit 1 must be set (mss-avail-stored-data(1))
 - Bit 2 must be set (mss-upd-aperiodic(2))
 - Bit 3 must be set (mss-msmt-aperiodic(3))
 - Bit 9 must be set (mss-acc-agent-initiated(9))
- d. IF Not Recommended attribute Metric-Structure-Small is present
 - ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL
 - ☐ attribute-type = MetricStructureSmall
 - ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))
- e. IF Not Recommended attribute Measurement-Status is present
 - ☐ attribute-id = MDC_ATTR_MSMT_STAT
 - ☐ attribute-type = MeasurementStatus (BITS-16)
 - ☐ attribute-value.length = 2 bytes
- f. IF Not Recommended attribute Metric-Id is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO
 - ☐ attribute-type = OID-Type (INT-U16)
 - ☐ attribute-value.length = 2 bytes
- g. IF Not Recommended attribute Metric-Id-List is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST
 - ☐ attribute-type = MetricIdList
 - ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16)
- h. IF Not Recommended attribute Metric-Id-Partition is present
 - ☐ attribute-id = MDC_ATTR_METRIC_ID_PART
 - ☐ attribute-type = NomPartition (INT-U16)
 - ☐ attribute-value.length = 2 bytes
- i. Mandatory attribute Unit-Code
 - ☐ attribute-id = MDC_ATTR_UNIT_CODE
 - ☐ attribute-type = OID-Type(INT-U16)
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value = MDC_DIM_L_PER_MIN
- j. IF Not Recommended attribute Source-Handle-Reference is present
 - ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF
 - ☐ attribute-type = HANDLE (INT-U16)
 - ☐ attribute-value.length = 2 bytes
- k. IF Recommended attribute Base-Offset-Time-Stamp is present
 - ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO
 - ☐ attribute-type = BaseOffsetTime
 - ☐ attribute-value.length = 8 bytes

	l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-009		
TP label		Respiratory Rate Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		RespRate 2; M	RespRate 3; M	RespRate 4; M
		RespRate 5; R		
Test purpose		Check that: The Respiratory Rate Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_005		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration 4. Once the PHD under test sends an extended configuration, check that Respiratory Rate		

	Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_INSTANT (0x57 0x8B) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_MIN (0x57 0x81) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_MAX (0x57 0x82) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_MEAN (0x57 0x83) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_P50 (0x57 0x87) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_P90 (0x57 0x89) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_P95 (0x57 0x8A) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART
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	☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_RESP_PER_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-010		
TP label		Tidal Volume Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		

		TidalVol 2; M	TidalVol 3; M	TidalVol 4; M
		TidalVol 5; R		
Test purpose	Check that: The Tidal Volume Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_006			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Tidal Volume Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_INSTANT (0x58 0x2B) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_MIN (0x58 0x21) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_MAX (0x58 0x22) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_MEAN (0x58 0x23) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_P50 (0x58 0x27) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_TIDAL_P90 (0x58 0x29) or MDC_PART_PHD_DM (0x00 0x80) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length = <variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))			

	e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_MILLI_L j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-011		
TP label		Respiratory Minute Volume Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		RespVol 2; M	RespVol 3; M	RespVol 4; M
		RespVol 5; R		
Test purpose		Check that: The Respiratory Minute Volume Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_007		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Respiratory Minute Volume Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_INSTANT (0x58 0x03) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_MIN (0x57 0xF9) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_MAX (0x57 0xFA) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_MEAN (0x57 0xFB) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_P50 (0x57 0xFF) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_P90 (0x58 0x01) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_VOL_MINUTE_P95 (0x58 0x02) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small		

	☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no = 1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_L_PER_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present
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	☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-012		
TP label		I:E Ratio Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		IER 2; M	IER 3; M	IER 4; M
		IER 5; R		
Test purpose		Check that: The I:E Ratio Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_008		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that I:E Ratio Object attributes are: a. Mandatory attribute Type		

	☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_INSTANT (0x57 0xB3) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_MIN (0x57 0xA9) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_MAX (0x57 0xAA) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_MEAN (0x57 0xAB) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_P50 (0x57 0xAF) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_P90 (0x57 0xB1) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_P95 (0x57 0xB2) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 14 must be set (mss-cat-calculation(14)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code
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	☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-013		
TP label		Snoring Duration Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		SnorDur 2; M	SnorDur 3; M	SnorDur 4; M
		SnorDur 5; R		
Test purpose		Check that:		

	The Snoring Duration Numeric object contains the attributes specified for Extended Configuration.
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_009
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Snoring Duration Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_SNOIRING_TOTAL (0x56 0x64) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 14 must be set (mss-cat-calculation(14)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes

	g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes		
Pass/Fail criteria	All checked values are as specified in the test procedure.		
Notes			

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-014		
TP label		CSR Duration Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R

		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		CSR 2; M	CSR 3; M	CSR 4; M
		CSR 5; R		
Test purpose	Check that: The CSR Duration Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_010			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	- The simulated PHG receives an association request from the PHD under test. - The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. - Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. - Once the PHD under test sends an extended configuration, check that CSR Duration Object attributes are: - Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_CSR_TOTAL (0x56 0x68) - IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes - Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 - Bit 0 must be set (mss-avail-intermittent(0)) - Bit 1 must be set (mss-avail-stored-data(1)) - Bit 2 must be set (mss-upd-aperiodic(2)) - Bit 9 must be set (mss-acc-agent-initiated(9)) - Bit 14 must be set (mss-cat-calculation(14)) - IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall			

	☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.

Notes				
TP Id		TP/PLT/PHD/CLASS/SABTE/BV-015		
TP label		Duration of Flow Generation Numeric Object - Standard configuration (2400)		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 2; M	NumObj 4; M	NumObj 6; R
		NumObj 8; M	NumObj 10; R	NumObj 12; R
		NumObj 14; R	NumObj 16; R	NumObj 18; R
		NumObj 20; M	NumObj 22; M	NumObj 24; R
		NumObj 26; O	NumObj 28; O	NumObj 30; C
		NumObj 32; R	NumObj 34; C	NumObj 36; C
		NumObj 38; R	NumObj 40; C	NumObj 42; C
		NumObj 44; C	NumObj 46; C	NumObj 48; C
		NumObj 50; C	NumObj 52; R	
		DFG 2; M	DFG 4; M	DFG 6; M
		DFG 8; M	DFG 10; M	DFG 12; R
		DFG 14; M		
		Test purpose		Check that: The Duration of Flow Generation Numeric object contains the attributes specified for Standard Configuration.
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT C_AG_OXP_181)		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set to 0x0960 (2400); if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends a standard configuration, check that Duration of Flow Generation Object attributes are: a. Mandatory attribute Handle ☐ attribute-id = MDC_ATTR_ID_HANDLE ☐ attribute-type = HANDLE ☐ attribute-value = 0x00 0x02 b. Mandatory attribute Type ☐ IF (Dev-Config-Id = 0x0960): • attribute-id = MDC_ATTR_ID_TYPE		

	• attribute-type = TYPE • attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54). c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 (mss-avail-intermittent(0)), must be set • Bit 1 (mss-avail-stored-data(1)), must be set • Bit 2 (mss-upd-aperiodic(2)), must be set • Bit 3 (mss-msmt-aperiodic(3)), must be set • Bit 9 (mss-acc-agent-initiated(9)), must be set • The other bits have to be 0. d. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN e. Mandatory attribute Attribute-Value-Map ☐ attribute-id = MDC_ATTR_ATTRIBUTE_VAL_MAP ☐ attribute-type = AttrValMap (sequence of attribute-id(OID-Type) and attribute-length(INT-U16)) ☐ attribute-value.length=<variable> ☐ attribute-value= MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_BO f. No other attribute shall be present at configuration.
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-016		
TP label		Duration of Flow Generation Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		DFG 5; M	DFG 7; M	DFG 9; M

		DFG 13; R		
Test purpose	Check that: The Duration of Flow Generation Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Duration of Flow Generation Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 2 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present			

	☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Simple-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_SIMP ☐ attribute-type = SimpleNuObsValue ☐ attribute-value.length = 4 bytes n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-017		
TP label		Humidifier Level Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		HumidLvl 2; M	HumidLvl 3; M	HumidLvl 4; M
		HumidLvl 5; R	HumidLvl 6; M	
Test purpose		Check that: The Humidifier Level Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_011		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Humidifier Level Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_LVL_HUMID_STAGE_SET (0x56 0xCC) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_LVL_HUMID_TEMP_SET (0x56 0xD0) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_LVL_HUMID_HUM_SET (0x56 0xD4) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes		

	☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-a-periodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no = 1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present
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	☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) ☐ attribute-value = between 0 and 100. n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-018		
TP label		Ramp Start Pressure Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		RSPS 2; M	RSPS 3; M	RSPS 4; M
		RSPS 5; R		
Test purpose		Check that: The Ramp Start Pressure Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_012		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Ramp Start Pressure Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE		

	☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_PRESS_RAMP_START_SET (0x57 0x7C) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16)
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	☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-019		
TP label		Ramp Duration Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		RDS 2; M	RDS 3; M	RDS 4; M
		RDS 5; R		
Test purpose		Check that: The Ramp Duration Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_013		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		

Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Ramp Duration Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_RAMP_SET (0x56 0x78) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16)
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	☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-020		
TP label		Pressure Adaption Level Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PALS 2; M	PALS 3; M	PALS 4; M

		PALS 5; R	PALS 6; M	
Test purpose	Check that: The Pressure Adaption Level Set Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_014			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Pressure Adaption Level Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_LVL_ADAPT_SET (0x56 0xE0) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO			

	☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) ☐ attribute-value = between 0 and 100 n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes	
Pass/Fail criteria	All checked values are as specified in the test procedure.	
Notes		

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-021
TP label		P CPAP Set Numeric Object - Extended configuration
Coverage	Spec	[ISO/IEEE 11073-10424]

	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PCPAP 2; M	PCPAP 3; M	PCPAP 4; M
		PCPAP 5; R		
Test purpose		Check that: The P CPAP Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_015		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that P CPAP Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_CPAP_SET (0x57 0x5C) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL		

	☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
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Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-022		
TP label		Pmin APAP Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PminAPAP 2; M	PminAPAP 3; M	PminAPAP 4; M
		PminAPAP 5; R		
Test purpose		Check that: The Pmin APAP Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_016		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Pmin APAP Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_CPAP_AUTO_MIN_SET (0x57 0x60) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16)		

	☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes
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	m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-023		
TP label		Pmax APAP Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PmaxAPAP 2; M	PmaxAPAP 3; M	PmaxAPAP 4; M
		PmaxAPAP 5; R		
Test purpose		Check that: The Pmax APAP Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_017		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Pmax APAP Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE		

	☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_CPAP_AUTO_MAX_SET (0x57 0x64) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16)
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	☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-024		
TP label		P IPAP Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PIPAP 2; M	PIPAP 3; M	PIPAP 4; M
		PIPAP 5; R		
Test purpose		Check that: The P IPAP Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_018		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test.		

	2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that P IPAP Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_IPAP_SET (0x57 0x68) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes
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	i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-025		
TP label		P EPAP Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		PEPAP 2; M	PEPAP 3; M	PEPAP 4; M
		PEPAP 5; R		

Test purpose	Check that: The P EPAP Set Numeric object contains the attributes specified for Extended Configuration.
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_019
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that P EPAP Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_EPAP_SET (0x57 0x6C) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes

	g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_HECTO_PASCAL j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes		
Pass/Fail criteria	All checked values are as specified in the test procedure.		
Notes			

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-026		
TP label		Respiratory Rate Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R

		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		RespSet 2; M	RespSet 3; M	RespSet 4; M
		RespSet 5; R		
Test purpose	Check that: The Respiratory Rate Set Numeric object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_020			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Respiratory Rate Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RESP_RATE_SET (0x57 0xA4) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))			

	e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_RESP_PER_MIN j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-027		
TP label		I:E Ratio Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		IERSet 2; M	IERSet 3; M	IERSet 4; M
		IERSet 5; R		
Test purpose		Check that: The I:E Ratio Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_021		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that I:E Ratio Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_RATIO_IE_SET (0x57 0xCC) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1))		

	• Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue
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	☐ attribute-value.length = SFLOAT-Type (INT-U16) n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-028		
TP label		Trigger Sensitivity Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		TSS 2; M	TSS 3; M	TSS 4; M
		TSS 5; R	TSS 6; M	
Test purpose		Check that: The Trigger Sensitivity Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_022		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Trigger Sensitivity Set Object attributes are: a. Mandatory attribute Type ❑ attribute-id = MDC_ATTR_ID_TYPE ❑ attribute-type = TYPE ❑ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_LVL_TRIG_SENS_SET (0x56 0xD8) b. IF Not Recommended Supplemental-Types attribute is present		

	☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO
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	☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) ☐ attribute-value = between 0 and 100 n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-029		
TP label		Inspiration Pressure Rise Set Numeric Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	NumObj 3; M	NumObj 5; R	NumObj 7; M
		NumObj 9; R	NumObj 11; R	NumObj 13; R
		NumObj 15; C	NumObj 17; R	NumObj 19; M
		NumObj 23; R	NumObj 31; R	NumObj 41; C
		NumObj 45; C	NumObj 47; C	NumObj 49; C
		NumObj 51; R		
		IPRS 2; M	IPRS 3; M	IPRS 4; M
		IPRS 5; R	IPRS 6; M	
Test purpose		Check that: The Inspiration Pressure Rise Set Numeric object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_023		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an		

	MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Inspiration Pressure Rise Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_LVL_INSP_PRESS_RISE_SET (0x56 0xDC) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. Mandatory attribute Unit-Code
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	☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value= MDC_DIM_PERCENT j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Basic-Nu-Observed-Value is present ☐ attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC ☐ attribute-type = BasicNuObsValue ☐ attribute-value.length = SFLOAT-Type (INT-U16) ☐ attribute-value = between 0 and 100 n. IF Not Recommended attribute Accuracy is present ☐ attribute-id = MDC_ATTR_NU_ACCUR_MSMT ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-030		
TP label		Therapy Pressure Waveform RT-SA Object for Extended Configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	RTSAObj2; M	RTSAObj 3; R	RTSAObj 4; M
		RTSAObj 5; R	RTSAObj 6; R	RTSAObj 7; R
		RTSAObj 8; R	RTSAObj 9; M	RTSAObj 11; R
		RTSAObj 15; R	RTSAObj 19; M	RTSAObj 20; M
		RTSAObj 21; M	RTSAObj 22; M	TPWave 2; M
		TPWave 3; M		
Test purpose		Check that: Therapy Pressure Waveform RT-SA Object contains the attributes specified for Extended Configuration		

Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_024
Other PICS	C_AG_OXP_009, C_AG_OXP_014, C_AG_OXP_293
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD under test responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is set to the tested extended configuration. If it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. Repeat this step until a Dev-config-Id equal to the extended configuration. 5. Once the PHD under test sends the tested configuration, check Therapy Pressure waveform object: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ▪ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS (0x57 0x44) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PRESS_TARGET (0x57 0x58) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute.value.length= Sequence of TYPE (TYPE.length= 4 bytes) ☐ attribute-value = <Not relevant for this test> c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (2 bytes) ☐ attribute-value = 0x00 0x00 d. IF Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> e. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length =2 bytes ☐ attribute-value = <Not relevant for this test> f. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value = <Not relevant for this test> g. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition(INT-U16)

	☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test>
	h. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_HECTO_PASCAL
	i. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test>
	j. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant for this test>
	k. Mandatory attribute Sample-Period ☐ attribute-id = MDC_ATTR_TIME_PD_SAMP ☐ attribute-type = RelativeTime ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant in this test>
	l. Mandatory attribute Simple-Sa-Observed-Value ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even>
	m. Mandatory attribute Scale-and-Range-Specification ☐ attribute-id = MDC_ATTR_SCALE_SPECN_I8 or MDC_ATTR_SCALE_SPECN_I16 or MDC_ATTR_SCALE_SPECN_I32 ☐ attribute-type = ScaleRangeSpec8 OR ScaleRangeSpec16 OR ScaleRangeSpec32 ☐ attribute-value.length = 1, 2 OR 4 bytes, depending on the type ☐ attribute-value = <Not relevant in this test>
	n. Mandatory attribute Sa-Specification ☐ attribute-id = MDC_ATTR_SA_SPECN ☐ attribute-type = SaSpec ☐ attribute-value.length = 6 bytes ☐ attribute-value = <Not relevant in this test>
6.	If C_AG_OXP_293: a. Once in Configuring/Sending GetMDS substate simulated PHG issues roiv-cmip-get command with handle set to 0 (to request for MDS object) and attribute-id-list set to 0 to indicate all attributes. b. The PHD responds with a rors-cmip-get service message in which the attribute-list contains a list of all implemented attributes of the MDS object. c. IF the mds-time-mgr-set-time bit is set: ☐ The PHG moves to Configuring/Sending Set Time substate and:

	• IF C_AG_OXP_005 it issues the Set-Time action command. • IF C_AG_OXP_014 it issues the Set-Base-Offset-Time action command. ☐ Once its internal time setting operation is completed, the PHD responds to the PHG. 7. If the PHD under test sends the Therapy Pressure waveforms RT-SA observations through a scanner object THEN the simulated PHG enables the scanner and receives the RT-SA event reports. The attribute of interest is: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even> 8. IF the PHD under test sends the Therapy Pressure waveforms RT-SA observations through a PM-Store object THEN the simulated PHG sends a request for PM-Sore data (TrigSegmDataXfer) and the PHD sends the RT-SA stored data. The attribute of interest is: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even>
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	[AT4 wireless]: MetricSpecSmall must set bit mss-acc-agent-initiated(9) to TRUE because Scanner events are agent-initiated by intent in [ISO/IEEE 11073-20601-2015A] in spite of the fact the PHG enables/disables these objects (see bugzilla #856 for further details, http://continua.plugfests.com/show_bug.cgi?id=856).

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-031		
TP label		Leakage Waveform RT-SA Object for Extended Configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	RTSAObj2; M	RTSAObj 3; R	RTSAObj 4; M
		RTSAObj 5; R	RTSAObj 6; R	RTSAObj 7; R
		RTSAObj 8; R	RTSAObj 9; M	RTSAObj 11; R
		RTSAObj 15; R	RTSAObj 19; M	RTSAObj 20; M
		RTSAObj 21; M	RTSAObj 22; M	LeakWave 2; M
		LeakWave 3; M		
Test purpose		Check that: Leakage Waveform RT-SA Object contains the attributes specified for Extended Configuration		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_025		
Other PICS		C_AG_OXP_009, C_AG_OXP_014, C_AG_OXP_293		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config.		

3. The PHD under test responds with a "Remote Operation Invoke | Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG.
4. Check that the field Dev-Config-Id is set to the tested extended configuration. If it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. Repeat this step until a Dev-config-Id equal to the extended configuration.
5. Once the PHD under test sends the tested configuration, check Leakage Waveform object:
 - a. Mandatory attribute Type
 - ☐ attribute-id = MDC_ATTR_ID_TYPE
 - ☐ attribute-type = TYPE
 - attribute-value = MDC_PART_PHD_DM (0x00 0x80) | MDC_SABTE_VOL_LEAK (0x57 0xD0)
 - b. IF Not Recommended attribute Supplemental-Types is present
 - ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES
 - ☐ attribute-type = SupplementalTypeList
 - ☐ attribute.value.length= Sequence of TYPE (TYPE.length= 4 bytes)
 - ☐ attribute-value = <Not relevant for this test>
 - c. Mandatory attribute Metric-Spec-Small
 - ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL
 - ☐ attribute-type = MetricSpecSmall (2 bytes)
 - ☐ attribute-value = 0x00 0x00
 - d. IF Recommended attribute Measurement-Status is present
 - ☐ attribute-id = MDC_ATTR_MSMT_STAT
 - ☐ attribute-type = MeasurementStatus
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value = <Not relevant for this test>
 - e. IF Not Recommended attribute Metric-Id is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO
 - ☐ attribute-type = OID-Type(INT-U16)
 - ☐ attribute-value.length =2 bytes
 - ☐ attribute-value = <Not relevant for this test>
 - f. IF Not Recommended attribute Metric-Id-List is present
 - ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS
 - ☐ attribute-type = MetricIdList
 - ☐ attribute-value = <Not relevant for this test>
 - g. IF Not Recommended attribute Metric-Id-Partition is present
 - ☐ attribute-id = MDC_ATTR_METRIC_ID_PART
 - ☐ attribute-type = NomPartition(INT-U16)
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value = <Not relevant for this test>
 - h. Mandatory attribute Unit-Code
 - ☐ attribute-id = MDC_ATTR_UNIT_CODE
 - ☐ attribute-type = OID-Type
 - ☐ attribute-value.length = 2 bytes
 - ☐ attribute-value = MDC_DIM_L_PER_MIN

	i. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> j. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant for this test> k. Mandatory attribute Sample-Period ☐ attribute-id = MDC_ATTR_TIME_PD_SAMP ☐ attribute-type = RelativeTime ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant in this test> l. Mandatory attribute Simple-Sa-Observed-Value ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even> m. Mandatory attribute Scale-and-Range-Specification ☐ attribute-id = MDC_ATTR_SCALE_SPECN_I8 or MDC_ATTR_SCALE_SPECN_I16 or MDC_ATTR_SCALE_SPECN_I32 ☐ attribute-type = ScaleRangeSpec8 OR ScaleRangeSpec16 OR ScaleRangeSpec32 ☐ attribute-value.length = 1, 2 OR 4 bytes, depending on the type ☐ attribute-value = <Not relevant in this test> n. Mandatory attribute Sa-Specification ☐ attribute-id = MDC_ATTR_SA_SPECN ☐ attribute-type = SaSpec ☐ attribute-value.length = 6 bytes ☐ attribute-value = <Not relevant in this test> 6. IF C_AG_OXP_293: a. Once in Configuring/Sending GetMDS substate simulated PHG issues roiv-cmip-get command with handle set to 0 (to request for MDS object) and attribute-id-list set to 0 to indicate all attributes. b. The PHD responds with a rors-cmip-get service message in which the attribute-list contains a list of all implemented attributes of the MDS object. c. IF the mds-time-mgr-set-time bit is set: ☐ The PHG moves to Configuring/Sending Set Time substate and: • IF C_AG_OXP_005 it issues the Set-Time action command. • IF C_AG_OXP_014 it issues the Set-Base-Offset-Time action command. ☐ Once its internal time setting operation is completed, the PHD responds to the PHG. 7. If the PHD under test sends the Leakage waveforms RT-SA observations through a scanner object THEN the simulated PHG enables the scanner and receives the RT-SA event reports. The attribute of interest is: a. Mandatory attribute Type
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	☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even> 8. If the PHD under test sends the Leakage waveforms RT-SA observations through a PM-Store object THEN the simulated PHG sends a request for PM-Sore data (TrigSegmDataXfer) and the PHD sends the RT-SA stored data. The attribute of interest is: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even>
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	[AT4 wireless]: MetricSpecSmall must set bit mss-acc-agent-initiated(9) to TRUE because Scanner events are agent-initiated by intent in [ISO/IEEE 11073-20601-2015A] in spite of the fact the PHG enables/disables these objects (see bugzilla #856 for further details, http://continua.pluginfests.com/show_bug.cgi?id=856).

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-032		
TP label		Airflow Waveform RT-SA Object for Extended Configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	RTSAObj2; M	RTSAObj 3; R	RTSAObj 4; M
		RTSAObj 5; R	RTSAObj 6; R	RTSAObj 7; R
		RTSAObj 8; R	RTSAObj 9; M	RTSAObj 11; R
		RTSAObj 15; R	RTSAObj 19; M	RTSAObj 20; M
		RTSAObj 21; M	RTSAObj 22; M	AirWave 2; M
		AirWave 3; M		
Test purpose		Check that: Airflow Waveform RT-SA Object contains the attributes specified for Extended Configuration		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_026		
Other PICS		C_AG_OXP_009, C_AG_OXP_014, C_AG_OXP_293		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD under test responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is set to the tested extended configuration. If it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. Repeat this step until a Dev-config-Id equal to the extended configuration. 5. Once the PHD under test sends the tested configuration, check Airflow Waveform object: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE		

	☐ attribute-type = TYPE • attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_FLOW_TOTAL (0x56 0x7C) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_FLOW_WO_PURGE (0x56 0x80) or MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_FLOW_RESP (0x56 0x84) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute.value.length = Sequence of TYPE (TYPE.length = 4 bytes) ☐ attribute-value = <Not relevant for this test> c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (2 bytes) ☐ attribute-value = 0x00 0x00 d. IF Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> e. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> f. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value = <Not relevant for this test> g. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> h. Mandatory attribute Unit-Code ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type ☐ attribute-value.length = 2 bytes ☐ attribute-value = MDC_DIM_L_PER_MIN i. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = <Not relevant for this test> j. IF Not Recommended attribute Measure-Active-Period is present
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	☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT-Type (INT-U32) ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant for this test> k. Mandatory attribute Sample-Period ☐ attribute-id = MDC_ATTR_TIME_PD_SAMP ☐ attribute-type = RelativeTime ☐ attribute-value.length = 4 bytes ☐ attribute-value = <Not relevant in this test> l. Mandatory attribute Simple-Sa-Observed-Value ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even> m. Mandatory attribute Scale-and-Range-Specification ☐ attribute-id = MDC_ATTR_SCALE_SPECN_I8 or MDC_ATTR_SCALE_SPECN_I16 or MDC_ATTR_SCALE_SPECN_I32 ☐ attribute-type = ScaleRangeSpec8 OR ScaleRangeSpec16 OR ScaleRangeSpec32 ☐ attribute-value.length = 1, 2 OR 4 bytes, depending on the type ☐ attribute-value = <Not relevant in this test> n. Mandatory attribute Sa-Specification ☐ attribute-id = MDC_ATTR_SA_SPECN ☐ attribute-type = SaSpec ☐ attribute-value.length = 6 bytes ☐ attribute-value = <Not relevant in this test> 6. IF C_AG_OXP_293: a. Once in Configuring/Sending GetMDS substate simulated PHG issues roiv-cmip-get command with handle set to 0 (to request for MDS object) and attribute-id-list set to 0 to indicate all attributes. b. The PHD responds with a rors-cmip-get service message in which the attribute-list contains a list of all implemented attributes of the MDS object. c. IF the mds-time-mgr-set-time bit is set: ☐ The PHG moves to Configuring/Sending Set Time substate and: • IF C_AG_OXP_005 it issues the Set-Time action command. • IF C_AG_OXP_014 it issues the Set-Base-Offset-Time action command. ☐ Once its internal time setting operation is completed, the PHD responds to the PHG. 7. IF the PHD under test sends the Airflow waveforms RT-SA observations through a scanner object THEN the simulated PHG enables the scanner and receives the RT-SA event reports. The attribute of interest is: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even> 8. IF the PHD under test sends the Airflow waveforms RT-SA observations through a PM-Store object THEN the simulated PHG sends a request for PM-Sore data (TrigSegmDataXfer) and the PHD sends the RT-SA stored data. The attribute of interest is:
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	a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_SIMP_SA_OBS_VAL ((x0A 0x48) ☐ attribute-type = OCTET STRING ☐ attribute-value = <length must be even>
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	[AT4 wireless]: MetricSpecSmall must set bit mss-acc-agent-initiated(9) to TRUE because Scanner events are agent-initiated by intent in [ISO/IEEE 11073-20601-2015A] in spite of the fact the PHG enables/disables these objects (see bugzilla #856 for further details, http://continua.pluginfests.com/show_bug.cgi?id=856).

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-033		
TP label		Compliance Annotations Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		CompAn 3; M	CompAn 4; M	CompAn 6; M
		CompAn 8; O	CompAn 9; M	
Test purpose		Check that: Compliance Annotations Enumeration Object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_027		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is in the extended range; if it is not, the simulated PHG must respond with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that all Compliance Annotations Objects have: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PATT_COMPLIANCE_CLS (0x57 0x1C) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList		

	☐ attribute-value.length =<variable>(Sequence of TYPE (TYPE.length= 4 bytes))
c.	Mandatory attribute Metric-Spec_Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length =2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9))
d.	IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))
e.	IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus(BITS-16) ☐ attribute-value.length =2 bytes
f.	IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = Only one attribute of Metric-Id and Metric-Id-List shall be present.
g.	IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value.length= <variable>(SEQUENCE OF OID-Type (INT-U16))
h.	IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes
i.	IF Not recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes
j.	IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes
k.	IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO

	☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. Mandatory attribute Enum-Observed-Value-Basic-Bit-Str ☐ attribute-id= MDC_ATTR_ENUM_OBS_VAL_BASIC_BIT_STR ☐ attribute-type = BITS-16 ☐ attribute-value.length = 2 bytes ☐ attribute-value = sabte-annotation-session-undetermined-start sabte-annotation-session-undetermined-stop sabte-annotation-session-therapy-start sabte-annotation-session-therapy-stop sabte-annotation-session-usage-start sabte-annotation-session-usage-stop
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-034		
TP label		Efficacy Annotations Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		EffAn 4; M	EffAn 5; M	EffAn 7; M
		EffAn 8; O	EffAn 9; M	
Test purpose		Check that: Efficacy Annotations Enumeration Object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_028		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is in the extended range; if it is not, the simulated PHG must respond with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that all Efficacy Annotations Objects have:		

	a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_PATT_EFFICACY_CLS (0x57 0x24) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable>(Sequence of TYPE (TYPE.length= 4 bytes)) c. Mandatory attribute Metric-Spec_Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length =2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 3 must be set (mss-msmt-aperiodic(3)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus(BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = Only one attribute of Metric-Id and Metric-Id-List shall be present. g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value.length= <variable>(SEQUENCE OF OID-Type (INT-U16)) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. IF Not recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16)
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	☐ attribute-value.length = 2 bytes j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. Mandatory attribute Enum-Observed-Value-Basic-Bit-Str ☐ attribute-id= MDC_ATTR_ENUM_OBS_VAL_BASIC_BIT_STR ☐ attribute-type = BITS-16 ☐ attribute-value.length = 2 bytes ☐ attribute.value= sabte-annotation-epoch-undetermined-start sabte-annotation-epoch-undetermined-stop sabte-annotation-epoch-breathing-artifact-start sabte-annotation-epoch-breathing-artifact-stop sabte-annotation-epoch-breathing-spontaneous-start sabte-annotation-epoch-breathing-spontaneous-stop sabte-annotation-epoch-breathing-timed-start sabte-annotation-epoch-breathing-timed-stop sabte-annotation-epoch-snoring-start sabte-annotation-epoch-snoring-stop sabte-annotation-epoch-csr-start sabte-annotation-epoch-csr-stop sabte-annotation-event-undetermined-start sabte-annotation-event-undetermined-stop sabte-annotation-event-flow-limitation-start sabte-annotation-event-flow-limitation-stop sabte-annotation-event-hypopnoea-unclassified-start sabte-annotation-event-hypopnoea-unclassified-stop sabte-annotation-event-hypopnoea-obstructive-start sabte-annotation-event-hypopnoea-obstructive-stop sabte-annotation-event-hypopnoea-central-start sabte-annotation-event-hypopnoea-central-stop sabte-annotation-event-apnoea-unclassified-start sabte-annotation-event-apnoea-unclassified-stop sabte-annotation-event-apnoea-obstructive-start sabte-annotation-event-apnoea-obstructive-stop sabte-annotation-event-apnoea-mixed-start sabte-annotation-event-apnoea-mixed-stop sabte-annotation-event-apnoea-central-start sabte-annotation-event-apnoea-central-stop
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-035		
TP label		PHD DM Status Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		PHDDM 4; M	PHDDM 5; M	PHDDM 7; M

		PHDDM 8; M	PHDDM 9; M	
Test purpose	Check that: PHD DM Status Enumeration Object contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_029			
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189			
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.			
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is in the extended range; if it is not, the simulated PHG must respond with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that all PHD DM Status Objects have: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_PHD_DM_DEV_STAT (0x4E 0x20) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length = <variable>(Sequence of TYPE (TYPE.length= 4 bytes)) c. Mandatory attribute Metric-Spec_Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 0 must be set (mss-avail-intermittent(0)) • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no = 1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus(BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO			

	☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = Only one attribute of Metric-Id and Metric-Id-List shall be present. g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value.length= <variable>(SEQUENCE OF OID-Type (INT-U16)) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. IF Not recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. Mandatory attribute Enum-Observed-Value-Simple-Str ☐ attribute-id= MDC_ATTR_ENUM_OBS_VAL_SIMP_STR ☐ attribute-type = BITS-16 ☐ attribute-value.length = 2 bytes ☐ attribute-value = device-status-undetermined device-status-reset device-status-error device-status-error-mechanical device-status-error-electronic device-status-error-software device-status-error-battery device-status-service device-status-service-time-sync-required device-status-service-calibration-required device-status-service-replenishment-required device-status-battery-low device-status-battery-depleted device-status-battery-replaced device-status-battery-interrupted
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id	TP/PLT/PHD/CLASS/SABTE/BV-036
TP label	Device Mode Set Enumeration Object - Standard configuration (2400)

Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 2; M	EnumObj 4; M	EnumObj 6; R
		EnumObj 8; M	EnumObj 10; R	EnumObj 12; R
		EnumObj 14; R	EnumObj 16; R	EnumObj 18; R
		EnumObj 20; R	EnumObj 22; M	EnumObj 24; R
		EnumObj 26; O	EnumObj 28; O	EnumObj 30; C
		EnumObj 32; R	EnumObj 34; C	EnumObj 36; C
		EnumObj 38; R	EnumObj 40; C	EnumObj 42; C
		EnumObj 44; C	EnumObj 46; C	EnumObj 48; C
		EnumObj 50; C		
		DevMode 4; M	DevMode 6; M	DevMode 8; M
		DevMode 10; M	DevMode 12; M	
Test purpose		Check that: The Device Mode Set enumeration object contains the attributes specified for Standard Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT C_AG_OXP_181)		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set to 0x0960 (2400); if it is not, the PHG responds with an “unsupported-config” and waits for a new configuration 4. Once the PHD under test sends a standard configuration, check that Device Mode Set Object attributes are: a. Mandatory attribute Handle ☐ attribute-id = MDC_ATTR_ID_HANDLE ☐ attribute-type = HANDLE ☐ attribute-value = 0x00 0x03 b. Mandatory attribute Type ☐ IF (Dev-Config-Id = 0x0960): • attribute-id = MDC_ATTR_ID_TYPE • attribute-type = TYPE • attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_DEV_SET (0x56 0xFC). c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes		

	☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 (mss-avail-stored-data(1)), must be set • Bit 2 (mss-upd-aperiodic(2)), must be set • Bit 9 (mss-acc-agent-initiated(9)), must be set • Bit 13 (mss-cat-setting(13)), must be set • The other bits have to be 0. d. Mandatory attribute Attribute-Value-Map ☐ attribute-id = MDC_ATTR_ATTRIBUTE_VAL_MAP ☐ attribute-type = AttrValMap (sequence of attribute-id(OID-Type) and attribute-length(INT-U16)) ☐ attribute-value.length=<variable> ☐ attribute-value= MDC_ATTR_ENUM_OBS_VAL_SIMP_OID, then MDC_ATTR_TIME_STAMP_BO e. Mandatory attribute Enum-Observed-Value-Simple-OID is present ☐ attribute-id = MDC_ATTR_ENUM_OBS_VAL_SIMP_OID ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = One of the following nomenclature values will be used: ▪ MDC_SABTE_MODE_DEV_UNDETERMINED (0x56 0xFD) ▪ MDC_SABTE_MODE_DEV_STANDBY (0x56 0xFE) ▪ MDC_SABTE_MODE_DEV_THERAPY (0x56 0xFF) ▪ MDC_SABTE_MODE_DEV_MASK_FITTING (0x57 0x00) ▪ MDC_SABTE_MODE_DEV_DRYING (0x57 0x01) ▪ MDC_SABTE_MODE_DEV_EXPORTING (0x57 0x02) f. No other attribute shall be present at configuration.
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-037		
TP label		Device Mode Set Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		DevMode 5; M	DevMode 7; M	DevMode 9; M
		DevMode 11; M		
Test purpose		Check that: The Device Mode Set enumeration Object contains the attributes specified for Extended Configuration.		

Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181
Other PICS	C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Device Mode Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_DEV_SET (0x56 0xFC) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length= 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList

	☐ attribute-value.length= SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. IF Not Recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Enum-Observed-Value-Simple-OID ☐ attribute-id = MDC_ATTR_ENUM_OBS_VAL_SIMP_OID ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = One of the following nomenclature values will be used: ▪ MDC_SABTE_MODE_DEV_UNDETERMINED (0x56 0xFD) ▪ MDC_SABTE_MODE_DEV_STANDBY (0x56 0xFE) ▪ MDC_SABTE_MODE_DEV_THERAPY (0x56 0xFF) ▪ MDC_SABTE_MODE_DEV_MASK_FITTING (0x57 0x00) ▪ MDC_SABTE_MODE_DEV_DRYING (0x57 0x01) ▪ MDC_SABTE_MODE_DEV_EXPORTING (0x57 0x02)
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-038		
TP label		Therapy Mode Set Enumeration Object - Standard configuration (2400)		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 2; M	EnumObj 4; M	EnumObj 6; R
		EnumObj 8; M	EnumObj 10; R	EnumObj 12; R
		EnumObj 14; R	EnumObj 16; R	EnumObj 18; R

		EnumObj 20; R	EnumObj 22; M	EnumObj 24; R
		EnumObj 26; O	EnumObj 28; O	EnumObj 30; C
		EnumObj 32; R	EnumObj 34; C	EnumObj 36; C
		EnumObj 38; R	EnumObj 40; C	EnumObj 42; C
		EnumObj 44; C	EnumObj 46; C	EnumObj 48; C
		EnumObj 50; C		
		TherMode 4; M	TherMode 6; M	TherMode 8; M
		TherMode 10; M	TherMode 12; M	
Test purpose		Check that: The Therapy Mode Set enumeration object contains the attributes specified for Standard Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT C_AG_OXP_181)		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		

Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set to 0x0960 (2400); if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends a standard configuration, check that Therapy Mode Set Object attributes are: a. Mandatory attribute Handle ☐ attribute-id = MDC_ATTR_ID_HANDLE ☐ attribute-type = HANDLE ☐ attribute-value = 0x00 0x04 b. Mandatory attribute Type ☐ IF (Dev-Config-Id = 0x0960): • attribute-id = MDC_ATTR_ID_TYPE • attribute-type = TYPE • attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_THERAPY_SET (0x57 0x08). c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 (mss-avail-stored-data(1)), must be set • Bit 2 (mss-upd-aperiodic(2)), must be set • Bit 9 (mss-acc-agent-initiated(9)), must be set • Bit 13 (mss-cat-setting(13)), must be set • The other bits have to be 0. d. Mandatory attribute Attribute-Value-Map ☐ attribute-id = MDC_ATTR_ATTRIBUTE_VAL_MAP ☐ attribute-type = AttrValMap (sequence of attribute-id(OID-Type) and attribute-length(INT-U16)) ☐ attribute-value.length=<variable> ☐ attribute-value= MDC_ATTR_ENUM_OBS_VAL_SIMP_OID, then MDC_ATTR_TIME_STAMP_BO e. Mandatory attribute Enum-Observed-Value-Simple-OID is present ☐ attribute-id = MDC_ATTR_ENUM_OBS_VAL_SIMP_OID ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = One of the following nomenclature values will be used: ▪ MDC_SABTE_MODE_THERAPY_UNDETERMINED (0x56 0xFD) ▪ MDC_SABTE_MODE_THERAPY_CPAP (0x57 0x09) ▪ MDC_SABTE_MODE_THERAPY_CPAP_AUTO (0x57 0x0A) ▪ MDC_SABTE_MODE_THERAPY_BPAP_S (0x57 0x0B) ▪ MDC_SABTE_MODE_THERAPY_BPAP_T (0x57 0x0C) ▪ MDC_SABTE_MODE_THERAPY_BPAP_ST (0x57 0x0D)
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	▪ MDC_SABTE_MODE_THERAPY_BPAP_S_AUTO (0x57 0x0E) ▪ MDC_SABTE_MODE_THERAPY_BPAP_T_AUTO (0x57 0x0F) ▪ MDC_SABTE_MODE_THERAPY_BPAP_ST_AUTO (0x57 0x10) ▪ MDC_SABTE_MODE_THERAPY_ACSV (0x57 0x11) f. No other attribute shall be present at configuration.
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-039		
TP label		Therapy Mode Set Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		TherMode 5; M	TherMode 7; M	TherMode 9; C
		TherMode 11; M		
Test purpose		Check that: The Therapy Mode Set enumeration Object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181		
Other PICS		C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 3. Check that the field Dev-Config-Id is set in the extended range; if it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. 4. Once the PHD under test sends an extended configuration, check that Therapy Mode Set Object attributes are: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_THERAPY_SET (0x57 0x08) b. IF Not Recommended Supplemental-Types attribute is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable> (Sequence of TYPE (TYPE.length= 4 bytes		

	c. Mandatory attribute Metric-Spec-Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length = 2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no = 1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status is present ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus (BITS-16) ☐ attribute-value.length = 2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIST ☐ attribute-type = MetricIdList ☐ attribute-value.length = SEQUENCE OF OID-Type (INT-U16) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. IF Not Recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE
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	☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. IF Recommended attribute Enum-Observed-Value-Simple-OID is present ☐ attribute-id = MDC_ATTR_ENUM_OBS_VAL_SIMP_OID ☐ attribute-type = OID-Type(INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = One of the following nomenclature values will be used: ▪ MDC_SABTE_MODE_THERAPY_UNDETERMINED (0x56 0xFD) ▪ MDC_SABTE_MODE_THERAPY_CPAP (0x57 0x09) ▪ MDC_SABTE_MODE_THERAPY_CPAP_AUTO (0x57 0x0A) ▪ MDC_SABTE_MODE_THERAPY_BPAP_S (0x57 0x0B) ▪ MDC_SABTE_MODE_THERAPY_BPAP_T (0x57 0x0C) ▪ MDC_SABTE_MODE_THERAPY_BPAP_ST (0x57 0x0D) ▪ MDC_SABTE_MODE_THERAPY_BPAP_S_AUTO (0x57 0x0E) ▪ MDC_SABTE_MODE_THERAPY_BPAP_T_AUTO (0x57 0x0F) ▪ MDC_SABTE_MODE_THERAPY_BPAP_ST_AUTO (0x57 0x10) ▪ MDC_SABTE_MODE_THERAPY_ACSV (0x57 0x11)
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-040		
TP label		Autostart/-stop Set Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		AutoSS 4; M	AutoSS 5; M	AutoSS 7; M
		AutoSS 10; M		
Test purpose		Check that: Autostart/-stop Set Enumeration Object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_030		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG.		

	4. Check that the field Dev-Config-Id is in the extended range; if it is not, the simulated PHG must respond with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that all Autostart/-stop Set Objects have: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_AUTOSTARTSTOP_SET (0x56 0xF8) b. IF Not Recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable>(Sequence of TYPE (TYPE.length= 4 bytes)) c. Mandatory attribute Metric-Spec_Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length =2 bytes ☐ attribute-value $\neq$ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not Recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not Recommended attribute Measurement-Status ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus(BITS-16) ☐ attribute-value.length =2 bytes f. IF Not Recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = Only one attribute of Metric-Id and Metric-Id-List shall be present. g. IF Not Recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value.length= <variable>(SEQUENCE OF OID-Type (INT-U16)) h. IF Not Recommended attribute Metric-Id-Partition is present ☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes
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	i. IF Not recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes j. IF Not Recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF Recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not Recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. Mandatory attribute Enum-Observed-Value-Simple-Str ☐ attribute-id= MDC_ATTR_ENUM_OBS_VAL_SIMP_STR ☐ attribute-type = BITS-16 ☐ attribute-value.length = 2 bytes ☐ attribute-value = sabte-autostart-on sabte-autostop-on
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-041		
TP label		Pressure Adaption Freeze Set Enumeration Object - Extended configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	EnumObj 3; M	EnumObj 5; R	EnumObj 7; M
		EnumObj 9; R	EnumObj 11; R	EnumObj 13; R
		EnumObj 15; R	EnumObj 17; R	EnumObj 19; R
		EnumObj 23; R	EnumObj 31; R	EnumObj 37; R
		PAFS 6; M	PAFS 7; M	PAFS 9; M
Test purpose		Check that: Pressure Adaption Freeze Set Enumeration Object contains the attributes specified for Extended Configuration.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_031		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		

Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is in the extended range; if it is not, the simulated PHG must respond with an "unsupported-config" and waits for a new configuration. 5. Once the PHD under test sends an extended configuration, check that all Pressure Adaption Freeze Set Objects have: a. Mandatory attribute Type ☐ attribute-id = MDC_ATTR_ID_TYPE ☐ attribute-type = TYPE ☐ attribute-value = MDC_PART_PHD_DM (0x00 0x80) MDC_SABTE_MODE_ADAPT_FREEZE_SET (0x56 0xF4) b. IF Not recommended attribute Supplemental-Types is present ☐ attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES ☐ attribute-type = SupplementalTypeList ☐ attribute-value.length =<variable>(Sequence of TYPE (TYPE.length= 4 bytes)) c. Mandatory attribute Metric-Spec_Small ☐ attribute-id = MDC_ATTR_METRIC_SPEC_SMALL ☐ attribute-type = MetricSpecSmall (BITS-16) ☐ attribute-value.length =2 bytes ☐ attribute-value ≠ 0x00 0x00 • Bit 1 must be set (mss-avail-stored-data(1)) • Bit 2 must be set (mss-upd-aperiodic(2)) • Bit 9 must be set (mss-acc-agent-initiated(9)) • Bit 13 must be set (mss-cat-setting(13)) d. IF Not recommended attribute Metric-Structure-Small is present ☐ attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL ☐ attribute-type = MetricStructureSmall ☐ attribute-value.length = <variable>(Sequence of (ms-struct.length =1byte(INT-U8) + ms-comp-no =1byte(INT-U8))) e. IF Not recommended attribute Measurement-Status ☐ attribute-id = MDC_ATTR_MSMT_STAT ☐ attribute-type = MeasurementStatus(BITS-16) ☐ attribute-value.length =2 bytes f. IF Not recommended attribute Metric-Id is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = Only one attribute of Metric-Id and Metric-Id-List shall be present. g. IF Not recommended attribute Metric-Id-List is present ☐ attribute-id = MDC_ATTR_ID_PHYSIO_LIS ☐ attribute-type = MetricIdList ☐ attribute-value.length= <variable>(SEQUENCE OF OID-Type (INT-U16)) h. IF Not recommended attribute Metric-Id-Partition is present
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	☐ attribute-id = MDC_ATTR_METRIC_ID_PART ☐ attribute-type = NomPartition (INT-U16) ☐ attribute-value.length = 2 bytes i. IF Not recommended attribute Unit-Code is present ☐ attribute-id = MDC_ATTR_UNIT_CODE ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes j. IF Not recommended attribute Source-Handle-Reference is present ☐ attribute-id = MDC_ATTR_SOURCE_HANDLE_REF ☐ attribute-type = HANDLE (INT-U16) ☐ attribute-value.length = 2 bytes k. IF recommended attribute Base-Offset-Time-Stamp is present ☐ attribute-id = MDC_ATTR_TIME_STAMP_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes l. IF Not recommended attribute Measure-Active-Period is present ☐ attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE ☐ attribute-type = FLOAT type ☐ attribute-value.length = 4 bytes m. Mandatory attribute Enum-Observed-Value-Simple-OID is present ☐ attribute-id= MDC_ATTR_ENUM_OBS_VAL_SIMP_OID ☐ attribute-type = OID-Type (INT-U16) ☐ attribute-value.length = 2 bytes ☐ attribute-value = one of the following nomenclature values will be used: • MDC_SABTE_MODE_ADAPT_FREEZE_OFF (0x56 0xF5) OR • MDC_SABTE_MODE_ADAPT_FREEZE_ON (0x56 0xF6)
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-042		
TP label		SABTE: PM-Store, PM-Segment attributes		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	PMStrObjAtt 11; O	PMStrObjAtt 12; O	
Test purpose		Check that: If the measurements are periodic and the Sample-Period is not defined in each of the components' PMSegment object attributes, the Sample-Period shall be defined in the PM-Store attribute [AND] If the Sample-Period is defined in both the PM-Store and in the PM-Segment(s), the PM-Segment attribute value shall take precedence		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_041 AND C_AG_OXP_181		

Other PICS	
Initial condition	The simulated PHG and the PHD under test are in the Unassociated state.
Test procedure	1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. The handle for the PM-Store attribute must be: a. Mandatory attribute Handle ☐ attribute-type = HANDLE ☐ attribute-value.length = 2 bytes ☐ attribute-value = must be unique and non-zero. Actual value may be specified by the Device Specialization. 5. The simulated PHG shall send a Get request for the PM-Store object with an attribute-id-list set to 0 to indicate all PM-Store attributes. 6. The PHD issues a GET response with the PM-Store attributes it supports: a. Conditional attribute Sample-Period ☐ attribute-id = MDC_ATTR_TIME_PD_SAMP ☐ attribute-type = RelativeTime ☐ attribute-value.length= 4 bytes ☐ attribute-value= <Not relevant for this Test> 7. The simulated PHG shall send a Get-Segment-Info object action for the PM-Store object with SegmSelection set to all-segments a. Conditional attribute Sample-Period ☐ attribute-id = MDC_ATTR_TIME_PD_SAMP ☐ attribute-type = RelativeTime ☐ attribute-value.length= 4 bytes ☐ attribute-value= <Not relevant for this test>
Pass/Fail criteria	Attribute Sample-Period shall be implemented in PM-Store if it is not implemented in every PM-Segment.
Notes	

TP Id	TP/PLT/PHD/CLASS/SABTE/BV-043			
TP label	PM Segment Object for Extended Configuration			
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	PMStoreObj 5; M	PMStoreObj 6; O	PMStoreObj 7; M
		PMSegObj 6; M	PMSegObj 7; M	PMSegObj 8; M
		PMSegObj 10; M		
Test purpose	Check that: PM-Segment contains the attributes specified for Extended Configuration.			
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_041 AND C_AG_OXP_181			
Other PICS				

Initial condition	The simulated PHG and the PHD under test are in the Operating state.
Test procedure	1. The simulated PHG shall send a Get request for the PM-Store object with an attribute-id-list set to 0 to indicate all PM-Store attributes. 2. The simulated PHG shall send a Get-Segment-Info object action for the PM-Segment object with SegmSelection = all-segments to indicate the PM-Segments attributes of all available PM-Segments. 3. The PHD issues a response with the PM-Segment attributes it supports: a. Recommended attribute Segment-Start-BO-Time ☐ attribute-id = MDC_ATTR_TIME_START_SEG_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes ☐ attribute-value = <Not relevant for this test> b. Recommended attribute Segment-End-BO-Time ☐ attribute-id = MDC_ATTR_TIME_END_SEG_BO ☐ attribute-type = BaseOffsetTime ☐ attribute-value.length = 8 bytes ☐ attribute-value = <Not relevant for this test> c. Mandatory attribute PM-Segment-Entry-Map ☐ SegmentEntryHeader.value = One of the next must be set: • seg-elem-hdr-relative-time(1) • seg-elem-hdr-hires-relative-time(2) • seg-elem-hdr-bo-time(3) ☐ SegmEntryElem: < Record the fields for later comparison> 4. Repeat step 3 and 4 for every Segment
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-043_A		
TP label		PM-Segment Object for Extended Configuration.MDS Event Reports		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	PMStoreObj 3; M		
Test purpose		Check that: Any configuration with a PM-store for longer term storage shall disable agent-initiated transmission as well as the use of scanner objects and support manager-initiated transmission of data recorded in PM-stores.		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_041 AND C_AG_OXP_181		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Operating state.		

Test procedure	1. Check if PHD configuration includes scanner objects. 2. The simulated PHG shall send a Get request for the PM-Store object with an attribute-id-list set to 0 to indicate all PM-Store attributes. 3. The simulated PHG shall send a Get-Segment-Info object action for the PM-Segment object with SegmSelection = all-segments to indicate the PM-Segments attributes of all available PM-Segments. 4. The simulated PHG asks for measurement. 5. Check event reports that are sent by the PHD.
Pass/Fail criteria	In step 1, the PHD configuration shall not include scanner objects In step 5, the PHD shall not send the data with MDS event reports
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-044		
TP label		Communication Model: Association Procedure		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	AgProcAs 1; M	AgProcAs 2; M	AgProcAs 4; M
		AgProcAs 5; M	AgProcAs 6; M	AgProcAs 7; M
		AgProcAs 8; M	AgProcAs 9; M	AgProcAs 10; M
		AgProcAs 11; M	AgProcAs 12; M	AgProcAs 13; C
		AgProcAs 14; O	MDSMethods 6; M	
Test purpose		Check that: The association procedure data exchange is correct		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162		
Other PICS		C_AG_OXP_002, C_AG_OXP_017		
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The PHD sends a message to associate to the simulated PHG, the expected fields sent by the PHD are: a. APDU Type ❑ field- type = AarqApdu ❑ field-length =2 bytes ❑ field-value =0xE2 0x00. b. assoc-version ❑ field- type = AssociationVersion ❑ field-length =BITS-32 ❑ field- value=0x80 0x00 0x00 0x00 c. data-proto-id ❑ field- type = DataProtold(INT-U16) ❑ field-length =2 bytes ❑ field- value=0x50 0x79 (20601) d. protocol-version		

	☐ field- type = Protocol Version ☐ field-length = 4 bytes ☐ field- value= At least bit protocol-version2(1) is set to 1 (0x40 0x00 0x00 0x00 OR 0xC0 0x00 0x00 0x00) e. encoding rules ☐ field- type = EncodingRules ☐ field-length = 2 bytes ☐ field- value= • Bit 0 must be set (support for MDER) • Bits 1 (XER) and 2 (PER) may be set • All other bits must be 0. f. nomenclature version ☐ field- type = NomenclatureVersion ☐ field-length = 4 bytes ☐ field- value=0x80 0x00 0x00 0x00 ☐ This value indicates version1 is supported (nom-version1(0) is set). g. functional – units ☐ field- type = FunctionalUnits ☐ field-length = 4 bytes • Bit 0 must be 0. • Bits 1 and 2 may be set • The rest of the bits must not be set h. System type ☐ field- type = SystemType ☐ field-length = 4 bytes ☐ field- value = 0x00 0x80 0x00 0x00 (sys-type-agent) i. System-Id ☐ field- type = OCTET STRING ☐ field-length = 8 bytes ☐ field- value = 0xxx 0xxx 0xxx 0xxx 0xxx 0xxx 0xxx 0xxx (octet string length = 8 UI-64 manufacturer and device) ☐ This value will be System Id attribute of MDS Object. j. dev-config-id ☐ field- type = ConfigId(INT-U16) ☐ field-length = 2 bytes ☐ field- value = • 0x09 0x60 for standard configuration. • <between 0x40 0x00 and 0x7F 0xFF > for extended configuration. k. data-req-mode-flags (DataReqModeCapab) ☐ field- type = DataReqModeFlags ☐ field-length = 2 bytes • IF the PHD supports agent-initiated measurement transfer → Bit 15 is set (data-req-supp-init-agent(15)) • IF the PHD supports requesting objects based on object handle → Bit 6 will be set (data-req-supp-scope-handle(6)).
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	• IF the PHD supports single response →Bit 8 will be set (data-req-supp-mode-single-rsp(8)). • If the PHD supports time unlimited data request →Bit 10 will be set (data-req-supp-mode-time-no-limit(10)). l. data-req-init-agent-count (DataReqModeCapab) ☐ field- type = INT-U8 ☐ field-length = 2 bytes ☐ field.value = 0x01 m. data-req-init-manager-count (DataReqModeCapab) ☐ field- type = INT-U8 ☐ field-length = 2 bytes ☐ field.value = 0x00
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-045		
TP label		PM Segment Object for Extended Configuration		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	PMStrObjMeth 1; M		
Test purpose		Check that: SABTE supports the Clear-Segments method with Confirmed mode		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_041 AND C_AG_OXP_071		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Operating state and the PHD has at least one PM-Segment with data stored		
Test procedure		1. Take measurements with the PHD of a value that is stored on a PM-Segment. 2. The simulated PHG shall send a Get request for the PM-Store object with an attribute-id-list set to 0 to indicate all PM-Store attributes. 3. The PHD issues a GET response with the PM-Store attributes, record the values of PMStoreCapab attribute. 4. The simulated PHG shall send a Get-Segment-Info object action with segmSelection set to all-segments to check that there are no Segments in use. 5. The simulated PHG sends a Clear-Segment to all segments: a. Data APDU ☐ Type = Invoke Confirmed Action, ☐ HANDLE = obj-handle ☐ Action = MDC_ACT_SEG_CLEAR ☐ SegmSelection = all-segments 6. The PHD under test operation response: a. Data APDU ☐ Type = Response Confirmed Action,		

	☐ HANDLE = obj-handle ☐ Action = MDC_ACT_SEG_CLEAR 7. Delay 8. The simulated PHG sends a request for the PM-Segment Data with SegmSelection = all-segments to obtain all the segments: a. Data APDU ☐ Type = Invoke Confirmed Action, ☐ HANDLE = obj-handle ☐ Action = MDC_ACT_SEG_TRIG_XFER ☐ SegmSelection = <Instance number of the selected PM-Segment that contained data before the clear-segment action> 9. The PHD issues an action response with the Data a. Data APDU ☐ Type = Response Confirmed Action, ☐ HANDLE = obj-handle ☐ Action = MDC_ACT_SEG_TRIG_XFER ☐ TrigSegmXferRsp = • If pmsc-clear-segm-remove is NOT set THEN TrigSegmXferRsp = tsxr-fail-segm-empty • ELSE TrigSegmXferRsp = tsxr-fail-no-such-segment
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-046		
TP label		Operating State. PHG to PHD Maximum APDU Size		
Coverage	Spec	[ISO/IEEE 11073-20601-2015A] and [ISO/IEEE 11073-20601-2016C]		
	Testable items	CommonCharac 3; M		
	Spec	[ISO/IEEE 11073-10424]		
	Testable items	ComChar 2; M		
Test purpose		Check that: Check that the total size of the response do not exceed of the maximum APDU size established by the specialization [AND] A SABTE PHD implementing only this device specialization shall be capable of receiving any APDU up to the size of Nr _x . For this standard, Nr _x shall be 8192 octets		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162		
Other PICS		C_AG_OXP_041, C_AG_OXP_100		
Initial condition		The simulated PHG and the PHD under test are in the Operating state		
Test procedure		1. The simulated PHG issues "Remote Operation Invoke Get" command with:		

	a. Obj-handle set to 0 (to request for MDS object) b. attribute-id-list.count = 103 c. attribute-id-list: (MDC_ATTR_ID_MODEL, MDC_ATTR_SYS_ID, MDC_ATTR_DEV_CONFIG_ID) repeated 34 times followed by an additional MDC_ATTR_ID_MODEL 2. Check the response of the PHD. 3. The simulated PHG issues "Remote Operation Invoke Get" command with handle set to 0 (to request for MDS object) and an empty attribute-id-list to indicate all attributes. 4. Check the response of the PHD.		
Pass/Fail criteria	• In step 2, the PHD under test may respond with a rors-cmip-get listing all the requested attributes, or with a roer message. If PICS C_AG_OXP_100 =TRUE and the PHD does not respond with a rors-cmip-get message, it responds with a roer message or rorj(resource-limitation) message, a WARNING will appear. ○ If the response is a get response, the total size of the response can not exceed the sum of the APDU sizes of the supported specializations (limited to an absolute limit of 64512 octets): ▪ Pulse Oximeter -> 9216 octets ▪ Weighing Scale -> 896 octets ▪ Glucose Meter -> 5120 octets or 64512 octets if PHD supports PM-Store ▪ Blood Pressure -> 896 octets ▪ Thermometer -> 896 octets ▪ Independent Activity Hub -> 5120 octets ▪ Cardiovascular -> 64512 octets or 6624 octets PHD under test only supports Step Counter Profile ▪ Strength -> 64512 octets: ▪ Adherence Monitor -> 1024 octets ▪ Peak Flow -> 2030 octets ▪ Body Composition Analyser -> 7730 octets ▪ Basic ECG/Simple ECG -> 7168 octets or 64512 octets if PHD supports PM-Store ▪ Basic ECG/Heart Rate -> 1280 octets or 64512 octets if PHD supports PM-Store ▪ International Normalized Ratio -> 896 octets or 64512 if PHD supports PM-Store ▪ Sleep apnoea breathing therapy equipment -> 64512 octets. ○ In case it responds with a roer, the reason must not be protocol-violation (23) • In step 4, the PHD must respond with a rors-cmip-get message.		
Notes			

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-047		
TP label		Set Time (Absolute Time) SABTE		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	MDSMethods 2; M		
Test purpose		Check that: If the PHD supports the [Absolute-Time-Stamp] attribute, the Set -Time method shall be implemented		

Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_009
Other PICS	
Initial condition	The simulated PHG and the PHD under test are in the Operating state.
Test procedure	- The simulated PHG sends a SET action: ☐ CHOICE = SetTimeInvoke ☐ action-type = MDC_ACT_SET_TIME ☐ the action-info-args are SetTimeInvoke - date-time = <century, year ≤ 99, month ≤ 12, day ≤ 31, hour ≤ 24, minute ≤ 60, second ≤ 60, sec-fractions ≤ 100> - accuracy = 0 - The PHD under test response shall be a rors-cmip-confirmed-action: ☐ action-type = MDC_ACT_SET_TIME ☐ action-info-args shall be empty.
Pass/Fail criteria	All checked values are as specified in the test procedure.
Notes	

TP Id	TP/PLT/PHD/CLASS/SABTE/BV-048		
TP label	Set Time (Base Offset Time) SABTE		
Coverage	Spec	[ISO/IEEE 11073-10424]	
	Testable items	MDSMethods 4; M	
Test purpose	Check that: If the PHD supports the [Base-Offset-Time-Stamp] attribute, the Set-Base-Offset-Time method shall be implemented		
Applicability	C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_014		
Other PICS			
Initial condition	The simulated PHG and the PHD under test are in the Operating state.		
Test procedure	- The simulated PHG sends a SET action: ☐ CHOICE = SetBOTimeInvoke ☐ action-type = MDC_ACT_SET_BO_TIME ☐ the action-info-args are SetBOTimeInvoke - date-time = bo-seconds = 0x00 0x00 0x00 0x00, bo-fractions = 0x00 0x00, bo-time-offset = 0x3C - The PHD under test response shall be a rors-cmip-confirmed-action: ☐ action-type = MDC_ACT_SET_BO_TIME ☐ action-info-args shall be empty.		
Pass/Fail criteria	All checked values are as specified in the test procedure.		
Notes			

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-049		
TP label		Compound apnoea hypopnoea index classification not supported		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	CAHI 10; M		
Test purpose		Check that: If a PHD does not support a classification, the corresponding value shall be reported as the special value Not a Number (NaN).		
Applicability		C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_032		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Operating state.		
Test procedure		1. Make a Compound apnoea hypopnoea index measurement with a classification not supported 2. Wait for the simulated PHG to receive the event report with the measurement.		
Pass/Fail criteria		The value of the uAHI, oAHI or cAHI measurements must be NaN.		
Notes				

TP Id		TP/PLT/PHD/CLASS/SABTE/BV-050		
TP label		RT-SA data availability		
Coverage	Spec	[ISO/IEEE 11073-10424]		
	Testable items	RTSAObj 23; M		
Test purpose		Check that: The RT-SA data shall be made available only through a scanner object or PM-Store object		
Applicability		C_AG_OXP_162 AND (C_AG_SABTE_024 OR C_AG_SABTE_025 OR C_AG_SABTE_026) AND C_AG_OXP_181 AND C_AG_OXP_000		
Other PICS				
Initial condition		The simulated PHG and the PHD under test are in the Unassociated state.		
Test procedure		1. The simulated PHG receives an association request from the PHD under test. 2. The simulated PHG responds with a result = accepted-unknown-config. 3. The PHD responds with a "Remote Operation Invoke Confirmed Event Report" message with an MDC_NOTI_CONFIG event to send its configuration to the PHG. 4. Check that the field Dev-Config-Id is set to the tested extended configuration. If it is not, the PHG responds with an "unsupported-config" and waits for a new configuration. Repeat this step until a Dev-config-Id equal to the extended configuration. 5. Check that RT-SA object/s is/are present and record its/their object handle/s 6. If the PHD supports PM-Store: a. The simulated PHG sends a Get-Segment-Info object action for the PM-Store object with SegmSelection = all-segment. b. The PHD issues a response (rors-cmip-confirmed-action)with the PM-Segment		

	attributes it supports in the SegmentInfoList structure. 7. Check that all RT-SA object/s handle/s are referenced in Scanner or PM-Store objects. a. If EpiCfgScanner object (MDC_MOC_SCAN_CFG_EPI) or PeriCfgScanner (MDC_MOC_SCAN_CFG_PERI) is present i. IF Attribute Scan-Handle-List is supported: ☐ attribute-id = MDC_ATTR_SCAN_HANDLE_LIST ☐ attribute-type = HANDLEList ☐ attribute-value.length = <Variable> ☐ attribute-value = It must include references to RT-SA objects handles ii. IF attribute Scan-Handle-Attr-Val-Map is supported: ☐ attribute-id = MDC_ATTR_SCAN_HANDLE_ATTR_VAL_MAP ☐ attribute-type = HANDLEAttrValMap ☐ attribute-value.count = N ☐ attribute-value.length = <Variable> ☐ attribute-value = It must include references to RT-SA objects handles b. If PM-Store object (MDC_MOC_VMO_PMSTORE) is present, then check the PM-Segment-Entry-Map of each PM-Segment. 8. Check the MDS event reports sent by the PHD under test.
Pass/Fail criteria	• In step 7.a, all RT-SA objects implemented by the PHD under test must be referenced in Scan-Handle-List or Scan-Handle-Attr-Val-Map attributes. • In step 7.b, all RT-SA objects implemented by the PHD under test must be referenced (through PM-Segment-Entry-Map attribute) in at least one time in the set of PM-Segments implemented by PM-Store objects. • In step 8, the MDS event report sent by the PHD under test must not include RT-SA object observations.
Notes	

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