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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)

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### **Conformance of ITU-T H.810 personal health system: Personal Health Devices interface Part 5O: 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          | <a href="http://handle.itu.int/11.1002/1000/12678">11.1002/1000/12678</a> |
| 2.0     | ITU-T H.845.15 | 2016-07-14 | 16          | <a href="http://handle.itu.int/11.1002/1000/12952">11.1002/1000/12952</a> |
| 3.0     | ITU-T H.845.15 | 2017-04-13 | 16          | <a href="http://handle.itu.int/11.1002/1000/13232">11.1002/1000/13232</a> |

#### 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.

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

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

## Introduction

This Recommendation is 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 Recommendation<sup>1</sup> 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)

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<sup>1</sup> 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> .<br><a href="https://www.iso.org/standard/68906.html">https://www.iso.org/standard/68906.html</a>                                                                                                                                |
| [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.<br><a href="https://www.iso.org/standard/54331.html">https://www.iso.org/standard/54331.html</a> with<br><a href="https://www.iso.org/standard/63972.html">https://www.iso.org/standard/63972.html</a> |

[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 |



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|       |                                                       |
|-------|-------------------------------------------------------|
| 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)
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  - Subgroup 2.3.13: Basic electrocardiograph (ECG)
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  - 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)

|                   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                   |
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| 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:<br>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    |                | <div>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.</div> <div>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:</div> <div>MDS attributes:</div> <div>a. Attribute System-Type must not be present.</div> <div>b. Mandatory attribute System-Type-Spec_List</div> <div><input type="checkbox"/> attribute-id = MDC_ATTR_SYS_TYPE_SPEC_LIST</div> <div><input type="checkbox"/> attribute-type = TypeVerList</div> <div><input type="checkbox"/> attribute-value.length = 4 bytes for each configuration supported</div> <div><input type="checkbox"/> attribute-value = {MDC_DEV_SPEC_PROFILE_SABTE, 1} and</div> <div><div>• IF C_AG_OXP_161 THEN {MDC_DEV_SUB_SPEC_PROFILE_CPAP,1}</div><div>• IF C_AG_OXP_160 THEN {MDC_DEV_SUB_SPEC_PROFILE_CPAP_AUTO,1}</div><div>• IF C_AG_OXP_159 THEN {MDC_DEV_SUB_SPEC_PROFILE_BPAP,1}</div></div> <div>c. Mandatory attribute System-model</div> <div><input type="checkbox"/> attribute-id = MDC_ATTR_ID_MODEL (0x09 0x28)</div> <div><input type="checkbox"/> attribute-type = SystemModel</div> <div><input type="checkbox"/> attribute-value.length = &lt;Variable&gt;</div> <div><input type="checkbox"/> attribute-value =</div> <div><div>• Manufacturer = Check against PIXIT I_AG_OXP_003</div><div>• Model = Check against PIXIT I_AG_OXP_004</div></div> <div>d. Mandatory attribute Dev-Configuration-Id</div> <div><input type="checkbox"/> IF NOT C_AG_OXP_181 THEN attribute-value = 0x0960 (2400)</div> <div><input type="checkbox"/> IF C_AG_OXP_181 THEN attribute-value = &lt;between 0x4000 and 0x7FFF &gt;</div> <div>e. Mandatory attribute Production-Specification</div> <div><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PROD_SPECN</div> |                   |                   |

|                           |                                                                                                                          |
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|                           | <input type="checkbox"/> attribute-type = ProductionSpec<br><input type="checkbox"/> attribute-value.length = <Variable> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                               |
| <b>Notes</b>              |                                                                                                                          |

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

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|                           | <input type="checkbox"/> field- type = OID-Type<br><input type="checkbox"/> field-length =INT-U16<br><input type="checkbox"/> field- value=0x0D 0x1C (MDC_NOTI_CONFIG)<br>g. config-report-id (ConfigReport)<br><input type="checkbox"/> field- type = ConfigId<br><input type="checkbox"/> field-length = INT-U16<br><input type="checkbox"/> field value = <It matches the tested configuration> <ul style="list-style-type: none"> <li>• IF NOT C_AG_OXP_181 THEN attribute-value = 0x 0960 (2400)</li> <li>• IF C_AG_OXP_181 THEN &lt;between 0x40 0x00 and 0x7F 0xFF &gt; for extended configuration.</li> </ul> h. obj-class ( ConfigReport → ConfigObjectList (ConfigObject))<br><input type="checkbox"/> field- type = OID-Type<br><input type="checkbox"/> field-length = INT-U16<br><input type="checkbox"/> field- value = At least one MDC_MOC_VMO_METRIC_NU |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| 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      |                | <p>Check that:</p> <p>Agent-initiated mode is supported for measurement data transmission and all types of event reports are used in confirmed or unconfirmed mode</p> <p>[AND]</p> <p>The PHD sends the MDS-Dynamic-Data-Update-Fixed using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoFixed</p> <p>[OR]</p> <p>The PHD sends the MDS-Dynamic-Data-Update-Var using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoVar</p> <p>[OR]</p> <p>The PHD sends the MDS-Dynamic-Data-Update-MP-Fixed using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoMPFixed</p> <p>[OR]</p> <p>The PHD sends the MDS-Dynamic-Data-Update-MP-Var using a confirmed or unconfirmed event report and it includes the event-info ScanReportInfoMPVar</p> |                 |                 |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |

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| <b>Test procedure</b>     | <ol style="list-style-type: none"> <li>Take measurements for every supported object in the PHD under test.</li> <li>Wait to receive every event reports and check: <ol style="list-style-type: none"> <li>APDU Type <ul style="list-style-type: none"> <li><input type="checkbox"/> field- type = Event Report</li> <li><input type="checkbox"/> field-length = 2 bytes</li> <li><input type="checkbox"/> field- value = 0x01 0x00 (EventReportArgumentSimple, unconfirmed) OR 0x01 0x01 (EventReportArgumentSimple, confirmed)</li> </ul> <p>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.</p> </li> </ol> </li> </ol> |
| <b>Pass/Fail criteria</b> | <p>Check that every received report is one of the following confirmed or unconfirmed Data APDU.</p> <ul style="list-style-type: none"> <li>MDC_NOTI_SCAN_REPORT_FIXED</li> <li>MDC_NOTI_SCAN_REPORT_MP_FIXED</li> <li>MDC_NOTI_SCAN_REPORT_VAR</li> <li>MDC_NOTI_SCAN_REPORT_MP_VAR</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| <b>TP Id</b>             | TP/PLT/PHD/CLASS/SABTE/BV-001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |              |
| <b>TP label</b>          | Objects for SABTE specialization - Standard Configuration (2400)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |              |
| <b>Coverage</b>          | <b>Spec</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | [ISO/IEEE 11073-10424] |              |
|                          | <b>Testable items</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DPU 1; M               | DFG 1; M     |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | TherMode 1; M          | DevMode 1; M |
| <b>Test purpose</b>      | <p>Check that:</p> <p>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).</p> <p>[AND]</p> <p>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).</p> <p>[AND]</p> <p>Device Mode Set Enumeration object with Type MDC_SABTE_MODE_DEV_SET is supported by a SABTE PHD for Standard Configuration 2400 (0x0960).</p> <p>[AND]</p> <p>Therapy Mode Set Enumeration object with Type MDC_SABTE_MODE_THERAPY_SET is supported by a SABTE PHD for Standard Configuration 2400 (0x0960).</p> |                        |              |
| <b>Applicability</b>     | C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT_C_AG_OXP_181)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |              |
| <b>Other PICS</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |              |
| <b>Initial condition</b> | The simulated PHG and the PHD are in the Unassociated state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |              |
| <b>Test procedure</b>    | <ol style="list-style-type: none"> <li>The simulated PHG receives an association request from the PHD under test.</li> <li>The simulated PHG responds with a result = accepted-unknown-config.</li> <li>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.</li> </ol>                                                                                                                                                                                                                                                                                                                       |                        |              |

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|                           | <p>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.</p> <p>5. Once the PHD under test sends a standard configuration, check that:<br/>IF (Dev-Config-Id = 0x0960) THEN Attribute-List:</p> <p>a. attribute-value (ConfigReport → ConfigObjectList (ConfigObject) → Attribute List), this value depends on the attribute Type. The values we have to check are:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Duration of Patient Use numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58)</li> <li><input type="checkbox"/> Duration of Flow Generation numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54)</li> <li><input type="checkbox"/> Device Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_DEV_SET (0x56 0xFC)</li> <li><input type="checkbox"/> Therapy Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_THERAPY_SET (0x57 0x08)</li> </ul> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure and no other object listed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| 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:<br><br>Duration of Patient Use and Duration of Flow Generation Numeric objects are supported by a SABTE PHD.<br><br>[AND]<br><br>Apnoea-Hypopnoea Index, Compound Apnoea-Hypopnoea Index, Therapy Pressure, Leakage, Respiratory Rate, Tidal Volume, Respiratory Minute Volume, I:E Ratio, Snoring |                |               |

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|                          | <p>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.</p> <p>[AND]</p> <p>Therapy Pressure Waveform, Leakage Waveform and Airflow Waveform RT-SA objects can be implemented by the vendor.</p> <p>[AND]</p> <p>Device Mode Set and Therapy Mode Set Enumeration objects are supported by a SABTE PHD.</p> <p>[AND]</p> <p>Compliance Annotations, Efficacy Annotations, PHD DM Status, Autostart/-stop Set and Pressure Adaption Freeze Set Enumeration objects can be implemented by the vendor.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Applicability</b>     | C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Other PICS</b>        | C_AG_SABTE_001, C_AG_SABTE_002, C_AG_SABTE_003, C_AG_SABTE_004,<br>C_AG_SABTE_005, C_AG_SABTE_006, C_AG_SABTE_007, C_AG_SABTE_008,<br>C_AG_SABTE_009, C_AG_SABTE_010, C_AG_SABTE_011, C_AG_SABTE_012,<br>C_AG_SABTE_013, C_AG_SABTE_014, C_AG_SABTE_015, C_AG_SABTE_016,<br>C_AG_SABTE_017, C_AG_SABTE_018, C_AG_SABTE_019, C_AG_SABTE_020,<br>C_AG_SABTE_021, C_AG_SABTE_022, C_AG_SABTE_023, C_AG_SABTE_024,<br>C_AG_SABTE_025, C_AG_SABTE_026, C_AG_SABTE_027, C_AG_SABTE_028,<br>C_AG_SABTE_029, C_AG_SABTE_030, C_AG_SABTE_031, C_AG_OXP_161,<br>C_AG_OXP_160, C_AG_OXP_159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Initial condition</b> | The simulated PHG and the PHD are in the Unassociated state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Test procedure</b>    | <ol style="list-style-type: none"> <li>1. The simulated PHG receives an association request from the PHD under test.</li> <li>2. The simulated PHG responds with a result = accepted-unknown-config.</li> <li>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.</li> <li>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.</li> <li>5. Once the PHD under test sends an extended configuration, check that: Attribute-List: <ol style="list-style-type: none"> <li>a. attribute-value( ConfigReport → ConfigObjectList (ConfigObject)→Attribute List), this value depends on the attribute type. The values we have to check are: <ul style="list-style-type: none"> <li>• Duration of Patient Use numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58)</li> <li>• Duration of Flow Generation numeric object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_FLOW_GEN_TOTAL (0x56 0x54)</li> <li>• Device Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_DEV_SET (0x56 0xFC)</li> <li>• Therapy Mode Set enumeration object is present → MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_MODE_THERAPY_SET (0x57 0x08)</li> </ul> </li> <li>❑ Any of these objects may be present, depending on the profile. <ul style="list-style-type: none"> <li>• 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).</li> <li>• IF C_AG_SABTE_002 THEN Compound Apnoea-Hypopnoea Index numeric Object is present → MDC_PART_PHD_DM (0x00 0x80),</li> </ul> </li> </ol> </li> </ol> |

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|  | <p>MDC_SABTE_AHI (0x56 0xA4).</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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</li> </ul> |
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|  | <p>0xB2).</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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)</li> <li>• IF C_AG_OXP_159 THEN Pressure Adaption Level Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_159) THEN P CPAP Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_161 OR C_AG_OXP_159) THEN Pmin APAP Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_161 OR C_AG_OXP_159) THEN Pmax APAP Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN P IPAP Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN P EPAP Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN Respiratory Rate Set numeric Object is NOT present</li> <li>• 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</li> </ul> |
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|                           | <p>0xCC)</p> <ul style="list-style-type: none"> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN I:E Ratio Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF (C_AG_OXP_160 OR C_AG_OXP_161) THEN Trigger Sensitivity Set numeric Object is NOT present</li> <li>• 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)</li> <li>• IF C_AG_OXP_161 THEN Inspiration Pressure Rise Set numeric Object is NOT present</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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).</li> <li>• 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)</li> <li>• IF C_AG_OXP_159 THEN Pressure Adaption Freeze Set numeric Object is NOT present</li> </ul> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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

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|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 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    |              |              |
| <b>Test purpose</b>      | Check that:<br>The DPU Numeric object contains the attributes specified for Standard Configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |
| <b>Applicability</b>     | C_AG_OXP_000 AND C_AG_OXP_162 AND (NOT C_AG_OXP_181)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |              |              |
| <b>Other PICS</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |              |              |
| <b>Initial condition</b> | The simulated PHG and the PHD under test are in the Unassociated state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |              |              |
| <b>Test procedure</b>    | <ol style="list-style-type: none"> <li>1. The simulated PHG receives an association request from the PHD under test.</li> <li>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.</li> <li>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.</li> <li>4. Once the PHD under test sends a standard configuration, check that SABTE Object attributes are: <ol style="list-style-type: none"> <li>a. Mandatory attribute Handle <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_HANDLE</li> <li><input type="checkbox"/> attribute-type = HANDLE</li> <li><input type="checkbox"/> attribute-value = 0x00 0x01</li> </ul> </li> <li>b. Mandatory attribute Type <ul style="list-style-type: none"> <li><input type="checkbox"/> IF (Dev-Config-Id = 0x0960): <ul style="list-style-type: none"> <li>• attribute-id = MDC_ATTR_ID_TYPE</li> <li>• attribute-type = TYPE</li> <li>• attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_TIME_PD_USAGE_TOTAL (0x56 0x58).</li> </ul> </li> </ul> </li> <li>c. Mandatory attribute Metric-Spec-Small <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_SPEC_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricSpecSmall (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value <math>\neq</math> 0x00 0x00 <ul style="list-style-type: none"> <li>• Bit 0 (mss-avail-intermittent(0)), must be set</li> <li>• Bit 1 (mss-avail-stored-data(1)), must be set</li> </ul> </li> </ul> </li> </ol> </li> </ol> |              |              |              |

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|                           | <ul style="list-style-type: none"> <li>• Bit 2 (mss-upd-aperiodic(2)), must be set</li> <li>• Bit 3 (mss-msmt-aperiodic(3)), must be set</li> <li>• Bit 9 (mss-acc-agent-initiated(9)), must be set</li> <li>• The other bits have to be 0.</li> </ul> <p>d. Mandatory attribute Unit-Code</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_UNIT_CODE</li> <li><input type="checkbox"/> attribute-type = OID-Type(INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value= MDC_DIM_MIN</li> </ul> <p>e. Mandatory attribute Attribute-Value-Map</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ATTRIBUTE_VAL_MAP</li> <li><input type="checkbox"/> attribute-type = AttrValMap (sequence of attribute-id(OID-Type) and attribute-length( INT-U16) )</li> <li><input type="checkbox"/> attribute-value.length=&lt;variable&gt;</li> <li><input type="checkbox"/> attribute-value= MDC_ATTR_NU_VAL_OBS_BASIC, then MDC_ATTR_TIME_STAMP_BO</li> </ul> <p>f. No other attribute shall be present at configuration.</p> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|                   |                |                                                                                                                             |              |              |
|-------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| 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:<br><br>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

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

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

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |              |              |
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|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 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     |              |              |
| <b>Test purpose</b>      | Check that:<br>The Apnoea-Hypopnoea Index Numeric object contains the attributes specified for Extended Configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |
| <b>Applicability</b>     | C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |              |              |
| <b>Other PICS</b>        | C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |              |              |
| <b>Initial condition</b> | The simulated PHG and the PHD under test are in the Unassociated state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |              |              |
| <b>Test procedure</b>    | <ol style="list-style-type: none"> <li>1. The simulated PHG receives an association request from the PHD under test.</li> <li>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.</li> <li>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.</li> <li>4. Once the PHD under test sends an extended configuration, check that Apnoea-Hypopnoea Index Object attributes are: <ol style="list-style-type: none"> <li>a. Mandatory attribute Type <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_TYPE</li> <li><input type="checkbox"/> attribute-type = TYPE</li> <li><input type="checkbox"/> 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).</li> </ul> </li> <li>b. IF Not Recommended Supplemental-Types attribute is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES</li> <li><input type="checkbox"/> attribute-type = SupplementalTypeList</li> <li><input type="checkbox"/> attribute-value.length =&lt;variable&gt; (Sequence of TYPE (TYPE.length= 4 bytes</li> </ul> </li> <li>c. Mandatory attribute Metric-Spec-Small <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_SPEC_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricSpecSmall (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value ≠ 0x00 0x00 <ul style="list-style-type: none"> <li>• Bit 0 must be set (mss-avail-intermittent(0))</li> <li>• Bit 1 must be set (mss-avail-stored-data(1))</li> <li>• Bit 2 must be set (mss-upd-aperiodic(2))</li> <li>• Bit 9 must be set (mss-acc-agent-initiated(9))</li> <li>• Bit 14 must be set (mss-cat-calculation(14))</li> </ul> </li> </ul> </li> <li>d. IF Not Recommended attribute Metric-Structure-Small is present</li> </ol> </li> </ol> |              |              |              |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|  | <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricStructureSmall</li> <li><input type="checkbox"/> attribute-value.length = &lt;variable&gt;(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))</li> </ul> <p>e. IF Not Recommended attribute Measurement-Status is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_MSMT_STAT</li> <li><input type="checkbox"/> attribute-type = MeasurementStatus (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length =2 bytes</li> </ul> <p>f. IF Not Recommended attribute Metric-Id is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO</li> <li><input type="checkbox"/> attribute-type = OID-Type (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length= 2 bytes</li> </ul> <p>g. IF Not Recommended attribute Metric-Id-List is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO_LIST</li> <li><input type="checkbox"/> attribute-type = MetricIdList</li> <li><input type="checkbox"/> attribute-value.length= SEQUENCE OF OID-Type (INT-U16)</li> </ul> <p>h. IF Not Recommended attribute Metric-Id-Partition is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_ID_PART</li> <li><input type="checkbox"/> attribute-type = NomPartition (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul> <p>i. Mandatory attribute Unit-Code</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_UNIT_CODE</li> <li><input type="checkbox"/> attribute-type = OID-Type(INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value= MDC_DIM_EVT_PER_HR</li> </ul> <p>j. IF Not Recommended attribute Source-Handle-Reference is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_SOURCE_HANDLE_REF</li> <li><input type="checkbox"/> attribute-type = HANDLE (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul> <p>k. IF Recommended attribute Base-Offset-Time-Stamp is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_TIME_STAMP_BO</li> <li><input type="checkbox"/> attribute-type = BaseOffsetTime</li> <li><input type="checkbox"/> attribute-value.length = 8 bytes</li> </ul> <p>l. IF Not Recommended attribute Measure-Active-Period is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE</li> <li><input type="checkbox"/> attribute-type = FLOAT type</li> <li><input type="checkbox"/> attribute-value.length = 4 bytes</li> </ul> <p>m. IF Recommended attribute Basic-Nu-Observed-Value is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC</li> <li><input type="checkbox"/> attribute-type = BasicNuObsValue</li> <li><input type="checkbox"/> attribute-value.length = SFLOAT-Type (INT-U16)</li> </ul> <p>n. IF Not Recommended attribute Accuracy is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_ACCUR_MSMT</li> </ul> |
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|                           | <input type="checkbox"/> attribute-type = FLOAT-Type (INT-U32)<br><input type="checkbox"/> attribute-value.length = 4 byte |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                 |
| <b>Notes</b>              |                                                                                                                            |

|                   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |              |
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| 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:<br><br>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    |                | <div>1. The simulated PHG receives an association request from the PHD under test.</div> <div>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.</div> <div>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.</div> <div>4. Once the PHD under test sends an extended configuration, check that Compound Apnoea-Hypopnoea Index Object attributes are:<div>a. Mandatory attribute Type<div><input type="checkbox"/> attribute-id = MDC_ATTR_ID_TYPE</div><div><input type="checkbox"/> attribute-type = TYPE</div><div><input type="checkbox"/> attribute-value = MDC_PART_PHD_DM (0x00 0x80), MDC_SABTE_AHI (0x56 0xA4).</div></div><div>b. IF Not Recommended Supplemental-Types attribute is present<div><input type="checkbox"/> attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES</div><div><input type="checkbox"/> attribute-type = SupplementalTypeList</div></div></div> |              |              |

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|    | <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-value.length =&lt;variable&gt; (Sequence of TYPE (TYPE.length= 4 bytes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| c. | <p>Mandatory attribute Metric-Spec-Small</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_SPEC_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricSpecSmall (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value <math>\neq</math> 0x00 0x00 <ul style="list-style-type: none"> <li>• Bit 0 must be set (mss-avail-intermittent(0))</li> <li>• Bit 1 must be set (mss-avail-stored-data(1))</li> <li>• Bit 2 must be set (mss-upd-aperiodic(2))</li> <li>• Bit 9 must be set (mss-acc-agent-initiated(9))</li> <li>• Bit 14 must be set (mss-cat-calculation(14))</li> </ul> </li> </ul> |
| d. | <p>IF Not Recommended attribute Metric-Structure-Small is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricStructureSmall</li> <li><input type="checkbox"/> attribute-value.length = &lt;variable&gt;(Sequence of (ms-struct.length = 1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))</li> </ul>                                                                                                                                                                                                                                                                                                  |
| e. | <p>IF Not Recommended attribute Measurement-Status is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_MSMT_STAT</li> <li><input type="checkbox"/> attribute-type = MeasurementStatus (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length =2 bytes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  |
| f. | <p>IF Not Recommended attribute Metric-Id is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO</li> <li><input type="checkbox"/> attribute-type = OID-Type (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length= 2 bytes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| g. | <p>Mandatory attribute Metric-Id-List</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO_LIST</li> <li><input type="checkbox"/> attribute-type = MetricIdList</li> <li><input type="checkbox"/> attribute-value.length= SEQUENCE OF OID-Type (INT-U16)</li> <li><input type="checkbox"/> attribute-value = MDC_SABTE_AHI_UNCLASS, then MDC_SABTE_AHI_OBSTRUC, then MDC_SABTE_AHI_CENTRAL.</li> </ul>                                                                                                                                                                                                                                                                          |
| h. | <p>IF Not Recommended attribute Metric-Id-Partition is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_ID_PART</li> <li><input type="checkbox"/> attribute-type = NomPartition (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |
| i. | <p>Mandatory attribute Unit-Code</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_UNIT_CODE</li> <li><input type="checkbox"/> attribute-type = OID-Type(INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value= MDC_DIM_EVT_PER_HR</li> </ul>                                                                                                                                                                                                                                                                                                                                                                  |
| j. | <p>IF Not Recommended attribute Source-Handle-Reference is present</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_SOURCE_HANDLE_REF</li> <li><input type="checkbox"/> attribute-type = HANDLE (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |
| k. | <p>IF Recommended attribute Base-Offset-Time-Stamp is present</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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

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| <b>TP Id</b>    |                       | TP/PLT/PHD/CLASS/SABTE/BV-007                            |              |              |
| <b>TP label</b> |                       | Therapy Pressure Numeric Object - Extended configuration |              |              |
| <b>Coverage</b> | <b>Spec</b>           | [ISO/IEEE 11073-10424]                                   |              |              |
|                 | <b>Testable items</b> | 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                                             |              |              |

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|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | TherPress 5; M |                |                |
| <b>Test purpose</b>      | Check that:<br>The Therapy Pressure Numeric object contains the attributes specified for Extended Configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                |                |
| <b>Applicability</b>     | C_AG_OXP_000 AND C_AG_OXP_162 AND C_AG_OXP_181 AND C_AG_SABTE_003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                |                |
| <b>Other PICS</b>        | C_AG_OXP_041, C_AG_OXP_183, C_AG_OXP_189                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                |
| <b>Initial condition</b> | The simulated PHG and the PHD under test are in the Unassociated state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                |                |
| <b>Test procedure</b>    | <ol style="list-style-type: none"> <li>1. The simulated PHG receives an association request from the PHD under test.</li> <li>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.</li> <li>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.</li> <li>4. Once the PHD under test sends an extended configuration, check that Therapy Pressure Object attributes are: <ol style="list-style-type: none"> <li>a. Mandatory attribute Type <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_TYPE</li> <li><input type="checkbox"/> attribute-type = TYPE</li> <li><input type="checkbox"/> 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)</li> </ul> </li> <li>b. IF Not Recommended Supplemental-Types attribute is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES</li> <li><input type="checkbox"/> attribute-type = SupplementalTypeList</li> <li><input type="checkbox"/> attribute-value.length =&lt;variable&gt; (Sequence of TYPE (TYPE.length= 4 bytes</li> </ul> </li> <li>c. Mandatory attribute Metric-Spec-Small <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_SPEC_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricSpecSmall (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value ≠ 0x00 0x00 <ul style="list-style-type: none"> <li>• Bit 0 must be set (mss-avail-intermittent(0))</li> <li>• Bit 1 must be set (mss-avail-stored-data(1))</li> <li>• Bit 2 must be set (mss-upd-aperiodic(2))</li> <li>• Bit 3 must be set (mss-msmt-aperiodic(3))</li> <li>• Bit 9 must be set (mss-acc-agent-initiated(9))</li> </ul> </li> </ul> </li> <li>d. IF Not Recommended attribute Metric-Structure-Small is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_STRUCTURE_SMALL</li> <li><input type="checkbox"/> attribute-type = MetricStructureSmall</li> <li><input type="checkbox"/> attribute-value.length = &lt;variable&gt;(Sequence of (ms-struct.length =</li> </ul> </li> </ol> </li> </ol> |                |                |                |

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|                           | <p>1byte(INT-U8) + ms-comp-no =1byte(INT-U8)))</p> <ul style="list-style-type: none"> <li>e. IF Not Recommended attribute Measurement-Status is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_MSMT_STAT</li> <li><input type="checkbox"/> attribute-type = MeasurementStatus (BITS-16)</li> <li><input type="checkbox"/> attribute-value.length =2 bytes</li> </ul> </li> <li>f. IF Not Recommended attribute Metric-Id is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO</li> <li><input type="checkbox"/> attribute-type = OID-Type (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length= 2 bytes</li> </ul> </li> <li>g. IF Not Recommended attribute Metric-Id-List is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_ID_PHYSIO_LIST</li> <li><input type="checkbox"/> attribute-type = MetricIdList</li> <li><input type="checkbox"/> attribute-value.length= SEQUENCE OF OID-Type (INT-U16)</li> </ul> </li> <li>h. IF Not Recommended attribute Metric-Id-Partition is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_METRIC_ID_PART</li> <li><input type="checkbox"/> attribute-type = NomPartition (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul> </li> <li>i. Mandatory attribute Unit-Code <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_UNIT_CODE</li> <li><input type="checkbox"/> attribute-type = OID-Type(INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> <li><input type="checkbox"/> attribute-value= MDC_DIM_HECTO_PASCAL</li> </ul> </li> <li>j. IF Not Recommended attribute Source-Handle-Reference is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_SOURCE_HANDLE_REF</li> <li><input type="checkbox"/> attribute-type = HANDLE (INT-U16)</li> <li><input type="checkbox"/> attribute-value.length = 2 bytes</li> </ul> </li> <li>k. IF Recommended attribute Base-Offset-Time-Stamp is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_TIME_STAMP_BO</li> <li><input type="checkbox"/> attribute-type = BaseOffsetTime</li> <li><input type="checkbox"/> attribute-value.length = 8 bytes</li> </ul> </li> <li>l. IF Not Recommended attribute Measure-Active-Period is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE</li> <li><input type="checkbox"/> attribute-type = FLOAT type</li> <li><input type="checkbox"/> attribute-value.length = 4 bytes</li> </ul> </li> <li>m. IF Recommended attribute Basic-Nu-Observed-Value is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC</li> <li><input type="checkbox"/> attribute-type = BasicNuObsValue</li> <li><input type="checkbox"/> attribute-value.length = SFLOAT-Type (INT-U16)</li> </ul> </li> <li>n. IF Not Recommended attribute Accuracy is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_ACCUR_MSMT</li> <li><input type="checkbox"/> attribute-type = FLOAT-Type (INT-U32)</li> <li><input type="checkbox"/> attribute-value.length = 4 bytes</li> </ul> </li> </ul> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|              |  |
|--------------|--|
| <b>Notes</b> |  |
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|                   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |              |
|-------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| 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:<br>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    |                | <div>1. The simulated PHG receives an association request from the PHD under test.</div> <div>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.</div> <div>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.</div> <div>4. Once the PHD under test sends an extended configuration, check that Leakage Object attributes are:<div>a. Mandatory attribute Type<div><input type="checkbox"/> attribute-id = MDC_ATTR_ID_TYPE</div><div><input type="checkbox"/> attribute-type = TYPE</div><div><input type="checkbox"/> 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).</div></div></div> <div>b. IF Not Recommended Supplemental-Types attribute is present<div><input type="checkbox"/> attribute-id = MDC_ATTR_SUPPLEMENTAL_TYPES</div><div><input type="checkbox"/> attribute-type = SupplementalTypeList</div><div><input type="checkbox"/> attribute-value.length =&lt;variable&gt; (Sequence of TYPE (TYPE.length= 4 bytes</div></div> |              |              |

- 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

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | <ul style="list-style-type: none"> <li>l. IF Not Recommended attribute Measure-Active-Period is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_TIME_PD_MSMT_ACTIVE</li> <li><input type="checkbox"/> attribute-type = FLOAT type</li> <li><input type="checkbox"/> attribute-value.length = 4 bytes</li> </ul> </li> <li>m. IF Recommended attribute Basic-Nu-Observed-Value is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_VAL_OBS_BASIC</li> <li><input type="checkbox"/> attribute-type = BasicNuObsValue</li> <li><input type="checkbox"/> attribute-value.length = SFLOAT-Type (INT-U16)</li> </ul> </li> <li>n. IF Not Recommended attribute Accuracy is present <ul style="list-style-type: none"> <li><input type="checkbox"/> attribute-id = MDC_ATTR_NU_ACCUR_MSMT</li> <li><input type="checkbox"/> attribute-type = FLOAT-Type (INT-U32)</li> <li><input type="checkbox"/> attribute-value.length = 4 bytes</li> </ul> </li> </ul> |
| <b>Pass/Fail criteria</b> | All checked values are as specified in the test procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Notes</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |               |
|-------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|
| 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:<br><br>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    |                | <div>1. The simulated PHG receives an association request from the PHD under test.</div> <div>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.</div> <div>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</div> <div>4. Once the PHD under test sends an extended configuration, check that Respiratory Rate</div> |               |               |

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  $\neq$  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

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