

Final Interoperability Test Report

FIT #: **32**
 Date: 27.06.2018
 Location: DNV-GL, Arnhem, Netherlands
 Page 1 of 45

APPLICANT

Company: Iskraemeco d.d.

Address: Savska loka 4, 4000 Kranj, Slovenija

DEVICE

Device type	Three-phase AM550 + AC150-A5 LTE	
<i>Type indication on MID certificate</i>		<i>MID Certificate No.</i>
AM550		SIQ 16MID002
<i>IDIS Specification reference</i>	<i>DNV-GL IDIS Certification run No</i>	<i>Digital signature of the test report.</i>
Package 2 ed. 2.0	292	DB3C07722A3EFE003BAF0B8BF41ED75D
<i>First certification</i>	<i>IDIS Label</i>	<i>Modular device</i>
☐	0031	☒
<i>General information about the device</i>		
Module: AC150-A5 LTE		

FIRMWARE VERSIONS TESTED				<i>Final Interoperability Test No. 32</i>
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	Verdict
1	ISK550TC02302002	ISK550TA03303011		Passed

Honeywell

Iskraemeco d.d.

Ittron

Landis+Gyr AG

Fit #32

Device: Three-phase AM550 + AC150-A5 LTE

DNV-GL, Arnhem, Netherlands, 27.06.2018

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FIRMWARE VERSIONS HISTORY				Final Integration Test	
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	No.	Verdict
1	ISK550TC02302002	ISK550TA03303011		32	Passed

TEST REPORT - Firmware No. 1		
Test	Verdict	Remark
Connect and release	Passed	
All Device IDs	Passed	
COSEM logical device name	Passed	
SAP assignment	Passed	
FW version and signature	Passed	
All Device ID's	Passed	
Broadcast Date and time	Passed	
Broadcast Special Days Table	Passed	
Event logs	Passed	
Billing data period 1	Passed	
M-Bus Channel Setup	Passed	
M-Bus Results	Passed	
M-Bus Devices IDs	Passed	
M-Bus profiles	Passed	
M-Bus Load profiles	Passed	
M-Bus control logs	Passed	
M-Bus Disconnect log	Passed	
FIT Push	Passed	
FIT Wake up	Passed	
FIT Miscellaneous	Passed	
Optical Port Connectivity	Passed	
Consumer Information Interface	Passed	
FIT Conformance Test Report		
<pre> ***** IDIS Conformance test report 27-JUN-2018 11:38:06 iCTT2 Package 2, Edition 2.0, Revision 1 (134) Licensed to: KEMA-IDIS Cert. Tester: Bas Roelofsen ***** ***** * Identification * ***** Manufacturer = { Name = '\Iskraemeco' ThreeLettersId = '\ISK' } DeviceUnderTest = { Type = '\ISK AM550-T + AC150-A5' IDISDeviceType = 103 IDISFunctionType = [EXTENSION_D, EXTENSION_L, EXTENSION_M] SerialNr = 23567788 IPVersion = IPV4 DataLinkLayer = GPRS ConsumerInformationPush = TRUE SMSSupported = TRUE ClipCallSupported = TRUE } Active firmware identifier (1-0:0.2.0.255) = \ISK550TC02302002 Active firmware identifier 1 (1-1:0.2.0.255) = \ISK550TA03303011 ***** * Summary * ***** PASSED 267 FAILED 0 DISABLED 0 INAPPLICABLE 6 </pre>		

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INCONCLUSIVE      0
FATAL             0
TOTAL             273

*****
Test Case 1 : Connect and release, 4 item(s)
*****
(1) Connect Public      PASSED
(2) Release Public      PASSED
(3) Connect Management  PASSED
(4) Release Management  PASSED

*****
Test Case 2 : Read Device IDs, 12 item(s)
*****

Mngmt Get Device ID 1, manufacturing number 0-0:96.1.0.255 (@46)
(1) .logical_name      PASSED
    <Data>
      <OctetString Value="0000600100FF" />
    </Data>
(2) .value             PASSED
    <Data>
      <OctetString Value="\23567788" />
    </Data>

Mngmt Get Device ID 2 0-0:96.1.1.255 (@50)
(3) .logical_name      PASSED
    <Data>
      <OctetString Value="0000600101FF" />
    </Data>
(4) .value             PASSED
    <Data>
      <OctetString Value="" />
    </Data>

Mngmt Get Device ID 3 0-0:96.1.2.255 (@54)
(5) .logical_name      PASSED
    <Data>
      <OctetString Value="0000600102FF" />
    </Data>
(6) .value             PASSED
    <Data>
      <OctetString Value="" />
    </Data>

Mngmt Get Device ID 4 0-0:96.1.3.255 (@58)
(7) .logical_name      PASSED
    <Data>
      <OctetString Value="0000600103FF" />
    </Data>
(8) .value             PASSED
    <Data>
      <OctetString Value="" />
    </Data>

Mngmt Get Device ID 5 0-0:96.1.4.255 (@62)
(9) .logical_name      PASSED
    <Data>
      <OctetString Value="0000600104FF" />
    </Data>
(10) .value            PASSED
    <Data>
      <OctetString Value="" />
    </Data>

Mngmt Get Device ID 6, IDIS certification number 0-0:96.1.5.255 (@66)
(11) .logical_name     PASSED
    <Data>
      <OctetString Value="0000600105FF" />
    </Data>
(12) .value            PASSED
    <Data>

```

<OctetString Value="" />	
</Data>	

Test Case 3 : Read COSEM Logical Device Name, 2 item(s)	

Mngmt Get COSEM logical device name 0-0:42.0.0.255 (@42)	
(1) .logical_name	PASSED
<Data>	
<OctetString Value="00002A0000FF" />	
</Data>	
(2) .value	PASSED
<Data>	
<OctetString Value="\ISK1030723567788" />	
</Data>	

Test Case 4 : Read SAP Assignment, 2 item(s)	

Mngmt Get SAP Assignment 0-0:41.0.0.255 (@4)	
(1) .logical_name	PASSED
<Data>	
<OctetString Value="0000290000FF" />	
</Data>	
(2) .SAP_assignment_list	PASSED
<Data>	
<Array Qty="0001" >	
<Structure Qty="0002" >	
<LongUnsigned Value="0001" />	
<OctetString Value="\ISK1030723567788" />	
</Structure>	
</Array>	
</Data>	

Test Case 5 : Read Active FW Version, 12 item(s)	

Mngmt Get Active firmware identifier 1-0:0.2.0.255 (@412)	
(1) .logical_name	PASSED
<Data>	
<OctetString Value="0100000200FF" />	
</Data>	
(2) .value	PASSED
<Data>	
<OctetString Value="\ISK550TC02302002" />	
</Data>	
Mngmt Get Active firmware signature 1-0:0.2.8.255 (@416)	
(3) .logical_name	PASSED
<Data>	
<OctetString Value="0100000208FF" />	
</Data>	
(4) .value	PASSED
<Data>	
<OctetString	
Value="B53C1D7D00804FE3E915A8FE8678339525FF42CCB4B0370182358B47F30BF1C4E6B8B0298BD77FD53FF12B	
CC82C34CC61C1B5FF24A3926832AECFFE3E59E74FD" />	
</Data>	
Mngmt Get Active firmware identifier 1 1-1:0.2.0.255 (@420)	
(5) .logical_name	PASSED
<Data>	
<OctetString Value="0101000200FF" />	
</Data>	
(6) .value	PASSED
<Data>	
<OctetString Value="\ISK550TA03303011" />	
</Data>	
Mngmt Get Active firmware signature 1 1-1:0.2.8.255 (@424)	

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(7) .logical_name                                     PASSED
    <Data>
    <OctetString Value="0101000208FF" />
    </Data>

(8) .value                                             PASSED
    <Data>
    <OctetString
Value="C5385012EB11877379F68C2F565E2C171949755EB4BACCB6D534435185210AB06E2A635FB5462E5132E7D6
4F71E3D1AC7ED6DA14B000AE935EE4258940841E3A" />
    </Data>

Mngmt Get Active firmware identifier 2 1-2:0.2.0.255 (@428)
(9) .logical_name
INAPPLICABLE
    Optional object is not implemented
(10) .value
INAPPLICABLE
    Optional object is not implemented

Mngmt Get Active firmware signature 2 1-2:0.2.8.255 (@432)
(11) .logical_name
INAPPLICABLE
    Optional object is not implemented
(12) .value
INAPPLICABLE
    Optional object is not implemented

*****
Test Case 6 : Set Clock, 1 item(s)
*****

Pre Set Clock 0-0:1.0.0.255 (@75)
(1) .time                                             PASSED
    <Data>
    <OctetString Value="07E2061B030C0000FF8000FF" />
    </Data>

*****
Test Case 7 : Get Clock, 1 item(s)
*****

Mngmt Get Clock 0-0:1.0.0.255 (@75)
(1) .time                                             PASSED
    <Data>
    <OctetString Value="07E2061B030C000000FF8880" />
    </Data>

*****
Test Case 8 : Set Special Days, 1 item(s)
*****

Pre Set Special Days Table 0-0:11.0.0.255 (@125)
(1) .entries                                          PASSED
    <Data>
    <Array Qty="000F" >
    <Structure Qty="0003" >
    <LongUnsigned Value="0001" />
    <OctetString Value="FFFF0101FF" />
    <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
    <LongUnsigned Value="0001" />
    <OctetString Value="FFFF0102FF" />
    <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
    <LongUnsigned Value="0001" />
    <OctetString Value="FFFF0103FF" />
    <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
    <LongUnsigned Value="0001" />
    <OctetString Value="FFFF0104FF" />
    </Structure>
    </Array>
    </Data>

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        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF0105FF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF0106FF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF0107FF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF0108FF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF0109FF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010AFF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010BFF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010CFF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010DFF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010EFF" />
        <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="FFFF010FFF" />
        <Unsigned Value="02" />
    </Structure>
</Array>
</Data>

```

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*****
Test Case 9 : Get Special Days, 1 item(s)
*****

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```

Mngmt Get Special Days Table 0-0:11.0.0.255 (@125)
(1) .entries

```

PASSED

```

    <Data>
        <Array Qty="000F" >
            <Structure Qty="0003" >
                <LongUnsigned Value="0001" />
                <OctetString Value="FFFF0101FF" />
                <Unsigned Value="02" />
            </Structure>

```

```

<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0102FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0103FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0104FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0105FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0106FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0107FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0108FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF0109FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010AFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010BFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010CFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010DFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010EFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0001" />
  <OctetString Value="FFFF010FFF" />
  <Unsigned Value="02" />
</Structure>
</Array>
</Data>

```

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*****
Test Case 10 : Read Event Log Buffers, 20 item(s)
*****

Mngmt Get Disconnecter Control Log 0-0:99.98.2.255 (@193)
(1) .logical_name PASSED
    <Data>
    <OctetString Value="0000636202FF" />
    </Data>
(2) .buffer PASSED
    Earliest date: 29-MAY-2018 14:12:54, latest date: 26-JUN-2018 12:25:37
    Middle date: 26-JUN-2018 12:25:37
(3) .entries_in_use PASSED
    <Data>
    <DoubleLongUnsigned Value="0000001E" />
    </Data>
(4) .profile_entries PASSED
    <Data>
    <DoubleLongUnsigned Value="0000001E" />
    </Data>

Mngmt Get Standard Event Log 0-0:99.98.0.255 (@301)
(5) .logical_name PASSED
    <Data>
    <OctetString Value="0000636200FF" />
    </Data>
(6) .buffer PASSED
    Earliest date: 26-JUN-2018 09:24:50, latest date: 27-OCT-2019 03:15:07
    Middle date: 26-JUN-2018 10:27:21
(7) .entries_in_use PASSED
    <Data>
    <DoubleLongUnsigned Value="00000064" />
    </Data>
(8) .profile_entries PASSED
    <Data>
    <DoubleLongUnsigned Value="00000064" />
    </Data>

Mngmt Get Fraud Detection Log 0-0:99.98.1.255 (@316)
(9) .logical_name PASSED
    <Data>
    <OctetString Value="0000636201FF" />
    </Data>
(10) .buffer PASSED
    Earliest date: 24-MAY-2018 15:16:20, latest date: 27-JUN-2018 11:28:48
    Middle date: 29-MAY-2018 14:21:30
(11) .entries_in_use PASSED
    <Data>
    <DoubleLongUnsigned Value="0000001E" />
    </Data>
(12) .profile_entries PASSED
    <Data>
    <DoubleLongUnsigned Value="0000001E" />
    </Data>

Mngmt Get Communication Log 0-0:99.98.5.255 (@331)
(13) .logical_name PASSED
    <Data>
    <OctetString Value="0000636205FF" />
    </Data>
(14) .buffer PASSED
    Earliest date: 17-MAY-2018 10:28:57, latest date: 27-JUN-2018 11:28:58
    Middle date: 28-MAY-2018 14:59:53
(15) .entries_in_use PASSED
    <Data>
    <DoubleLongUnsigned Value="000000FF" />
    </Data>
(16) .profile_entries PASSED
    <Data>
    <DoubleLongUnsigned Value="000000FF" />
    </Data>

Mngmt Get Power Quality Log 0-0:99.98.4.255 (@1340)

```

(17) .logical_name	PASSED
<Data>	
<OctetString Value="0000636204FF" />	
</Data>	
(18) .buffer	PASSED
Earliest date: 16-MAY-2018 00:00:00, latest date: 27-JUN-2018 11:28:40	
Middle date: 24-MAY-2018 15:45:24	
(19) .entries_in_use	PASSED
<Data>	
<DoubleLongUnsigned Value="00000064" />	
</Data>	
(20) .profile_entries	PASSED
<Data>	
<DoubleLongUnsigned Value="00000064" />	
</Data>	

Test Case 11 : Reading Data of Billing Period 1, 8 item(s)	

Mngmt Get Data of billing period 1 0-0:98.1.0.255 (@158)	
(1) .logical_name	PASSED
<Data>	
<OctetString Value="0000620100FF" />	
</Data>	
(2) .buffer	PASSED
Earliest date: 02-JUN-2018 00:00:00, latest date: 02-NOV-2019 00:00:00	
Middle date: 02-FEB-2019 00:00:00	
(3) .capture_objects	PASSED
<Data>	
<Array Qty="0005" >	
<Structure Qty="0004" >	
<LongUnsigned Value="0008" />	
<OctetString Value="0000010000FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
<Structure Qty="0004" >	
<LongUnsigned Value="0003" />	
<OctetString Value="0100010801FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
<Structure Qty="0004" >	
<LongUnsigned Value="0003" />	
<OctetString Value="0100010802FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
<Structure Qty="0004" >	
<LongUnsigned Value="0003" />	
<OctetString Value="0100020801FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
<Structure Qty="0004" >	
<LongUnsigned Value="0003" />	
<OctetString Value="0100020802FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
</Array>	
</Data>	
(4) .capture_period	PASSED
<Data>	
<DoubleLongUnsigned Value="00000000" />	
</Data>	
(5) .sort_method	PASSED
<Data>	
<Enum Value="01" />	
</Data>	
(6) .sort_object	PASSED
<Data>	

<pre> <Structure Qty="0004" > <LongUnsigned Value="0008" /> <OctetString Value="0000010000FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> </Data> (7) .entries_in_use <Data> <DoubleLongUnsigned Value="00000016" /> </Data> (8) .profile_entries <Data> <DoubleLongUnsigned Value="00000020" /> </Data> </pre>	PASSED
<pre> ***** Test Case 12 : Ext. M - M-Bus Setup LGZ G350, 52 item(s) ***** </pre>	
<pre> Mngmt Get M-Bus master port setup 1 0-0:24.6.0.255 (@1566) (1) .logical_name <Data> <OctetString Value="0000180600FF" /> </Data> (2) .comm_speed <Data> <Enum Value="03" /> </Data> </pre>	PASSED
<pre> Mngmt Get M-Bus master port setup 2 0-1:24.6.0.255 (@1570) (3) .logical_name INAPPLICABLE Optional object is not implemented (4) .comm_speed INAPPLICABLE Optional object is not implemented </pre>	
<pre> Mngmt Get M-Bus client channel 1 0-1:24.1.0.255 (@1574) (5) .logical_name <Data> <OctetString Value="0001180100FF" /> </Data> (6) .mbus_port_reference <Data> <OctetString Value="0000180600FF" /> </Data> (7) .capture_definition <Data> <Array Qty="0004" > <Structure Qty="0002" > <OctetString Value="\L" /> <OctetString Value="933A" /> </Structure> <Structure Qty="0002" > <OctetString Value="8940" /> <OctetString Value="FD1A" /> </Structure> <Structure Qty="0002" > <OctetString Value="0000000000000000" /> <OctetString Value="0000000000000000" /> </Structure> <Structure Qty="0002" > <OctetString Value="0000000000000000" /> <OctetString Value="0000000000000000" /> </Structure> </Array> </Data> (8) .capture_period <Data> <DoubleLongUnsigned Value="00000E10" /> </Data> (9) .primary_address </pre>	PASSED

```

        <Data>
            <Unsigned Value="01" />
        </Data>
(10) .identification_number PASSED
        <Data>
            <DoubleLongUnsigned Value="00047BB1" />
        </Data>
(11) .manufacturer_id PASSED
        <Data>
            <LongUnsigned Value="19AC" />
        </Data>
(12) .version PASSED
        <Data>
            <Unsigned Value="02" />
        </Data>
(13) .device_type PASSED
        <Data>
            <Unsigned Value="03" />
        </Data>
(14) .access_number PASSED
        <Data>
            <Unsigned Value="0F" />
        </Data>
(15) .status PASSED
        <Data>
            <Unsigned Value="60" />
        </Data>
(16) .alarm PASSED
        <Data>
            <Unsigned Value="00" />
        </Data>

Mngmt Get M-Bus client channel 2 0-2:24.1.0.255 (@1596)
(17) .logical_name PASSED
        <Data>
            <OctetString Value="0002180100FF" />
        </Data>
(18) .mbus_port_reference PASSED
        <Data>
            <OctetString Value="0000180600FF" />
        </Data>
(19) .capture_definition PASSED
        <Data>
            <Array Qty="0004" >
                <Structure Qty="0002" >
                    <OctetString Value="\L" />
                    <OctetString Value="933A" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="8940" />
                    <OctetString Value="FD1A" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="0000000000000000" />
                    <OctetString Value="0000000000000000" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="0000000000000000" />
                    <OctetString Value="0000000000000000" />
                </Structure>
            </Array>
        </Data>
(20) .capture_period PASSED
        <Data>
            <DoubleLongUnsigned Value="00000E10" />
        </Data>
(21) .primary_address PASSED
        <Data>
            <Unsigned Value="02" />
        </Data>
(22) .identification_number PASSED
        <Data>
            <DoubleLongUnsigned Value="00047BB2" />
        </Data>

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	</Data>	
(23)	.manufacturer_id	PASSED
	<Data>	
	<LongUnsigned Value="19AC" />	
	</Data>	
(24)	.version	PASSED
	<Data>	
	<Unsigned Value="02" />	
	</Data>	
(25)	.device_type	PASSED
	<Data>	
	<Unsigned Value="03" />	
	</Data>	
(26)	.access_number	PASSED
	<Data>	
	<Unsigned Value="F9" />	
	</Data>	
(27)	.status	PASSED
	<Data>	
	<Unsigned Value="60" />	
	</Data>	
(28)	.alarm	PASSED
	<Data>	
	<Unsigned Value="00" />	
	</Data>	
Mngmt Get M-Bus client channel 3 0-3:24.1.0.255 (@1618)		
(29)	.logical_name	PASSED
	<Data>	
	<OctetString Value="0003180100FF" />	
	</Data>	
(30)	.mbus_port_reference	PASSED
	<Data>	
	<OctetString Value="0000180600FF" />	
	</Data>	
(31)	.capture_definition	PASSED
	<Data>	
	<Array Qty="0004" >	
	<Structure Qty="0002" >	
	<OctetString Value="\L" />	
	<OctetString Value="933A" />	
	</Structure>	
	<Structure Qty="0002" >	
	<OctetString Value="8940" />	
	<OctetString Value="FD1A" />	
	</Structure>	
	<Structure Qty="0002" >	
	<OctetString Value="0000000000000000" />	
	<OctetString Value="0000000000000000" />	
	</Structure>	
	<Structure Qty="0002" >	
	<OctetString Value="0000000000000000" />	
	<OctetString Value="0000000000000000" />	
	</Structure>	
	</Array>	
	</Data>	
(32)	.capture_period	PASSED
	<Data>	
	<DoubleLongUnsigned Value="00000E10" />	
	</Data>	
(33)	.primary_address	PASSED
	<Data>	
	<Unsigned Value="03" />	
	</Data>	
(34)	.identification_number	PASSED
	<Data>	
	<DoubleLongUnsigned Value="00047BB4" />	
	</Data>	
(35)	.manufacturer_id	PASSED
	<Data>	
	<LongUnsigned Value="19AC" />	
	</Data>	
(36)	.version	PASSED

```

        <Data>
            <Unsigned Value="02" />
        </Data>
(37) .device_type PASSED
        <Data>
            <Unsigned Value="03" />
        </Data>
(38) .access_number PASSED
        <Data>
            <Unsigned Value="F1" />
        </Data>
(39) .status PASSED
        <Data>
            <Unsigned Value="60" />
        </Data>
(40) .alarm PASSED
        <Data>
            <Unsigned Value="00" />
        </Data>

Mngmt Get M-Bus client channel 4 0-4:24.1.0.255 (@1640)
(41) .logical_name PASSED
        <Data>
            <OctetString Value="0004180100FF" />
        </Data>
(42) .mbus_port_reference PASSED
        <Data>
            <OctetString Value="0000180600FF" />
        </Data>
(43) .capture_definition PASSED
        <Data>
            <Array Qty="0004" >
                <Structure Qty="0002" >
                    <OctetString Value="\L" />
                    <OctetString Value="933A" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="8940" />
                    <OctetString Value="FD1A" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="0000000000000000" />
                    <OctetString Value="0000000000000000" />
                </Structure>
                <Structure Qty="0002" >
                    <OctetString Value="0000000000000000" />
                    <OctetString Value="0000000000000000" />
                </Structure>
            </Array>
        </Data>
(44) .capture_period PASSED
        <Data>
            <DoubleLongUnsigned Value="00000E10" />
        </Data>
(45) .primary_address PASSED
        <Data>
            <Unsigned Value="04" />
        </Data>
(46) .identification_number PASSED
        <Data>
            <DoubleLongUnsigned Value="00047BB3" />
        </Data>
(47) .manufacturer_id PASSED
        <Data>
            <LongUnsigned Value="19AC" />
        </Data>
(48) .version PASSED
        <Data>
            <Unsigned Value="02" />
        </Data>
(49) .device_type PASSED
        <Data>
            <Unsigned Value="03" />
        </Data>

```

</Data>		
(50)	.access_number	PASSED
<Data>		
<Unsigned Value="3E" />		
</Data>		
(51)	.status	PASSED
<Data>		
<Unsigned Value="60" />		
</Data>		
(52)	.alarm	PASSED
<Data>		
<Unsigned Value="00" />		
</Data>		

Test Case 13 : Ext. M - M-Bus Results uncorrected Vol. & valve, 40 item(s)		

Mngmt Get M-Bus Value channel 1, instance 1 0-1:24.2.1.255 (@1662)		
(1)	.logical_name	PASSED
<Data>		
<OctetString Value="0001180201FF" />		
</Data>		
(2)	.value	PASSED
<Data>		
<DoubleLongUnsigned Value="00000DB7" />		
</Data>		
(3)	.scaler_unit	PASSED
<Data>		
<Structure Qty="0002" >		
<Integer Value="FD" />		
<Enum Value="0D" />		
</Structure>		
</Data>		
(4)	.status	PASSED
<Data>		
<Unsigned Value="00" />		
</Data>		
(5)	.capture_time	PASSED
<Data>		
<OctetString Value="07E30A1B0706000000FFC400" />		
</Data>		
Mngmt Get M-Bus Value channel 1, instance 2 0-1:24.2.2.255 (@1670)		
(6)	.logical_name	PASSED
<Data>		
<OctetString Value="0001180202FF" />		
</Data>		
(7)	.value	PASSED
<Data>		
<DoubleLongUnsigned Value="00000001" />		
</Data>		
(8)	.scaler_unit	PASSED
<Data>		
<Structure Qty="0002" >		
<Integer Value="00" />		
<Enum Value="FF" />		
</Structure>		
</Data>		
(9)	.status	PASSED
<Data>		
<Unsigned Value="00" />		
</Data>		
(10)	.capture_time	PASSED
<Data>		
<OctetString Value="07E30A1B0706000000FFC400" />		
</Data>		
Mngmt Get M-Bus Value channel 2, instance 1 0-2:24.2.1.255 (@1694)		
(11)	.logical_name	PASSED
<Data>		
<OctetString Value="0002180201FF" />		
</Data>		

(12) .value	PASSED
<Data>	
<DoubleLongUnsigned Value="00000A03" />	
</Data>	
(13) .scaler_unit	PASSED
<Data>	
<Structure Qty="0002" >	
<Integer Value="FD" />	
<Enum Value="0D" />	
</Structure>	
</Data>	
(14) .status	PASSED
<Data>	
<Unsigned Value="00" />	
</Data>	
(15) .capture_time	PASSED
<Data>	
<OctetString Value="07E30A1B0706000000FFC400" />	
</Data>	
Mngmt Get M-Bus Value channel 2, instance 2 0-2:24.2.2.255 (@1702)	
(16) .logical_name	PASSED
<Data>	
<OctetString Value="0002180202FF" />	
</Data>	
(17) .value	PASSED
<Data>	
<DoubleLongUnsigned Value="00000001" />	
</Data>	
(18) .scaler_unit	PASSED
<Data>	
<Structure Qty="0002" >	
<Integer Value="00" />	
<Enum Value="FF" />	
</Structure>	
</Data>	
(19) .status	PASSED
<Data>	
<Unsigned Value="00" />	
</Data>	
(20) .capture_time	PASSED
<Data>	
<OctetString Value="07E30A1B0706000000FFC400" />	
</Data>	
Mngmt Get M-Bus Value channel 3, instance 1 0-3:24.2.1.255 (@1726)	
(21) .logical_name	PASSED
<Data>	
<OctetString Value="0003180201FF" />	
</Data>	
(22) .value	PASSED
<Data>	
<DoubleLongUnsigned Value="00000D08" />	
</Data>	
(23) .scaler_unit	PASSED
<Data>	
<Structure Qty="0002" >	
<Integer Value="FD" />	
<Enum Value="0D" />	
</Structure>	
</Data>	
(24) .status	PASSED
<Data>	
<Unsigned Value="00" />	
</Data>	
(25) .capture_time	PASSED
<Data>	
<OctetString Value="07E30A1B0706000000FFC400" />	
</Data>	
Mngmt Get M-Bus Value channel 3, instance 2 0-3:24.2.2.255 (@1734)	
(26) .logical_name	PASSED
<Data>	

```

        <OctetString Value="0003180202FF" />
    </Data>
(27) .value PASSED
    <Data>
        <DoubleLongUnsigned Value="00000001" />
    </Data>
(28) .scaler_unit PASSED
    <Data>
        <Structure Qty="0002" >
            <Integer Value="00" />
            <Enum Value="FF" />
        </Structure>
    </Data>
(29) .status PASSED
    <Data>
        <Unsigned Value="00" />
    </Data>
(30) .capture_time PASSED
    <Data>
        <OctetString Value="07E30A1B0706000000FFC400" />
    </Data>

Mngmt Get M-Bus Value channel 4, instance 1 0-4:24.2.1.255 (@1758)
(31) .logical_name PASSED
    <Data>
        <OctetString Value="0004180201FF" />
    </Data>
(32) .value PASSED
    <Data>
        <DoubleLongUnsigned Value="0000073B" />
    </Data>
(33) .scaler_unit PASSED
    <Data>
        <Structure Qty="0002" >
            <Integer Value="FD" />
            <Enum Value="0D" />
        </Structure>
    </Data>
(34) .status PASSED
    <Data>
        <Unsigned Value="00" />
    </Data>
(35) .capture_time PASSED
    <Data>
        <OctetString Value="07E30A1B0706000000FFC400" />
    </Data>

Mngmt Get M-Bus Value channel 4, instance 2 0-4:24.2.2.255 (@1766)
(36) .logical_name PASSED
    <Data>
        <OctetString Value="0004180202FF" />
    </Data>
(37) .value PASSED
    <Data>
        <DoubleLongUnsigned Value="00000001" />
    </Data>
(38) .scaler_unit PASSED
    <Data>
        <Structure Qty="0002" >
            <Integer Value="00" />
            <Enum Value="FF" />
        </Structure>
    </Data>
(39) .status PASSED
    <Data>
        <Unsigned Value="00" />
    </Data>
(40) .capture_time PASSED
    <Data>
        <OctetString Value="07E30A1B0706000000FFC400" />
    </Data>

```

Test Case 14 : Ext. M - M-Bus Device IDs, 16 item(s)

Mngmt Get M-Bus Device ID 1 channel 1 0-1:96.1.0.255 (@1790)	
(1) .logical_name	PASSED
<Data>	
<OctetString Value="0001600100FF" />	
</Data>	
(2) .value	PASSED
<Data>	
<OctetString Value="\00000540029380911" />	
</Data>	
Mngmt Get M-Bus Device ID 1 channel 2 0-2:96.1.0.255 (@1794)	
(3) .logical_name	PASSED
<Data>	
<OctetString Value="0002600100FF" />	
</Data>	
(4) .value	PASSED
<Data>	
<OctetString Value="\00000540029381011" />	
</Data>	
Mngmt Get M-Bus Device ID 1 channel 3 0-3:96.1.0.255 (@1798)	
(5) .logical_name	PASSED
<Data>	
<OctetString Value="0003600100FF" />	
</Data>	
(6) .value	PASSED
<Data>	
<OctetString Value="\00000540029381211" />	
</Data>	
Mngmt Get M-Bus Device ID 1 channel 4 0-4:96.1.0.255 (@1802)	
(7) .logical_name	PASSED
<Data>	
<OctetString Value="0004600100FF" />	
</Data>	
(8) .value	PASSED
<Data>	
<OctetString Value="\00000540029381111" />	
</Data>	
Mngmt Get M-Bus Device ID 2 channel 1 0-1:96.1.1.255 (@1806)	
(9) .logical_name	PASSED
<Data>	
<OctetString Value="0001600101FF" />	
</Data>	
(10) .value	PASSED
<Data>	
<OctetString Value="" />	
</Data>	
Mngmt Get M-Bus Device ID 2 channel 2 0-2:96.1.1.255 (@1810)	
(11) .logical_name	PASSED
<Data>	
<OctetString Value="0002600101FF" />	
</Data>	
(12) .value	PASSED
<Data>	
<OctetString Value="" />	
</Data>	
Mngmt Get M-Bus Device ID 2 channel 3 0-3:96.1.1.255 (@1814)	
(13) .logical_name	PASSED
<Data>	
<OctetString Value="0003600101FF" />	
</Data>	
(14) .value	PASSED
<Data>	
<OctetString Value="" />	
</Data>	

Mngmt Get M-Bus Device ID 2 channel 4 0-4:96.1.1.255 (@1818)	
(15) .logical_name	PASSED
<Data> <OctetString Value="0004600101FF" /> </Data>	
(16) .value	PASSED
<Data> <OctetString Value="" /> </Data>	

Test Case 15 : Ext. M - M-Bus Load Profiles, 32 item(s)	

Mngmt Get M-Bus Master Load profile for channel 1 0-1:24.3.0.255 (@1838)	
(1) .logical_name	PASSED
<Data> <OctetString Value="0001180300FF" /> </Data>	
(2) .buffer	PASSED
Earliest date: 29-MAY-2018 18:00:00, latest date: 27-OCT-2019 04:00:00 Middle date: 27-OCT-2019 03:00:00	
(3) .capture_objects	PASSED
<Data> <Array Qty="0003" > <Structure Qty="0004" > <LongUnsigned Value="0008" /> <OctetString Value="0000010000FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> <Structure Qty="0004" > <LongUnsigned Value="0001" /> <OctetString Value="0001600A03FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> <Structure Qty="0004" > <LongUnsigned Value="0004" /> <OctetString Value="0001180201FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> </Array> </Data>	
(4) .capture_period	PASSED
<Data> <DoubleLongUnsigned Value="00000E10" /> </Data>	
(5) .sort_method	PASSED
<Data> <Enum Value="01" /> </Data>	
(6) .sort_object	PASSED
<Data> <Structure Qty="0004" > <LongUnsigned Value="0008" /> <OctetString Value="0000010000FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> </Data>	
(7) .entries_in_use	PASSED
<Data> <DoubleLongUnsigned Value="0000001A" /> </Data>	
(8) .profile_entries	PASSED
<Data> <DoubleLongUnsigned Value="00000168" /> </Data>	
Mngmt Get M-Bus Master Load profile for channel 2 0-2:24.3.0.255 (@1849)	
(9) .logical_name	PASSED

```

    <Data>
      <OctetString Value="0002180300FF" />
    </Data>
(10) .buffer PASSED
    Earliest date: 29-MAY-2018 18:00:00, latest date: 27-OCT-2019 04:00:00
    Middle date: 27-OCT-2019 03:00:00
(11) .capture_objects PASSED
    <Data>
      <Array Qty="0003" >
        <Structure Qty="0004" >
          <LongUnsigned Value="0008" />
          <OctetString Value="0000010000FF" />
          <Integer Value="02" />
          <LongUnsigned Value="0000" />
        </Structure>
        <Structure Qty="0004" >
          <LongUnsigned Value="0001" />
          <OctetString Value="0002600A03FF" />
          <Integer Value="02" />
          <LongUnsigned Value="0000" />
        </Structure>
        <Structure Qty="0004" >
          <LongUnsigned Value="0004" />
          <OctetString Value="0002180201FF" />
          <Integer Value="02" />
          <LongUnsigned Value="0000" />
        </Structure>
      </Array>
    </Data>
(12) .capture_period PASSED
    <Data>
      <DoubleLongUnsigned Value="00000E10" />
    </Data>
(13) .sort_method PASSED
    <Data>
      <Enum Value="01" />
    </Data>
(14) .sort_object PASSED
    <Data>
      <Structure Qty="0004" >
        <LongUnsigned Value="0008" />
        <OctetString Value="0000010000FF" />
        <Integer Value="02" />
        <LongUnsigned Value="0000" />
      </Structure>
    </Data>
(15) .entries_in_use PASSED
    <Data>
      <DoubleLongUnsigned Value="0000001A" />
    </Data>
(16) .profile_entries PASSED
    <Data>
      <DoubleLongUnsigned Value="00000168" />
    </Data>

Mngmt Get M-Bus Master Load profile for channel 3 0-3:24.3.0.255 (@1860)
(17) .logical_name PASSED
    <Data>
      <OctetString Value="0003180300FF" />
    </Data>
(18) .buffer PASSED
    Earliest date: 29-MAY-2018 18:00:00, latest date: 27-OCT-2019 04:00:00
    Middle date: 27-OCT-2019 03:00:00
(19) .capture_objects PASSED
    <Data>
      <Array Qty="0003" >
        <Structure Qty="0004" >
          <LongUnsigned Value="0008" />
          <OctetString Value="0000010000FF" />
          <Integer Value="02" />
          <LongUnsigned Value="0000" />
        </Structure>
        <Structure Qty="0004" >

```

```

        <LongUnsigned Value="0001" />
        <OctetString Value="0003600A03FF" />
        <Integer Value="02" />
        <LongUnsigned Value="0000" />
    </Structure>
    <Structure Qty="0004" >
        <LongUnsigned Value="0004" />
        <OctetString Value="0003180201FF" />
        <Integer Value="02" />
        <LongUnsigned Value="0000" />
    </Structure>
</Array>
</Data>
(20) .capture_period PASSED
    <Data>
        <DoubleLongUnsigned Value="00000E10" />
    </Data>
(21) .sort_method PASSED
    <Data>
        <Enum Value="01" />
    </Data>
(22) .sort_object PASSED
    <Data>
        <Structure Qty="0004" >
            <LongUnsigned Value="0008" />
            <OctetString Value="0000010000FF" />
            <Integer Value="02" />
            <LongUnsigned Value="0000" />
        </Structure>
    </Data>
(23) .entries_in_use PASSED
    <Data>
        <DoubleLongUnsigned Value="0000001A" />
    </Data>
(24) .profile_entries PASSED
    <Data>
        <DoubleLongUnsigned Value="00000168" />
    </Data>

Mngmt Get M-Bus Master Load profile for channel 4 0-4:24.3.0.255 (@1871)
(25) .logical_name PASSED
    <Data>
        <OctetString Value="0004180300FF" />
    </Data>
(26) .buffer PASSED
    Earliest date: 29-MAY-2018 18:00:00, latest date: 27-OCT-2019 04:00:00
    Middle date: 27-OCT-2019 03:00:00
(27) .capture_objects PASSED
    <Data>
        <Array Qty="0003" >
            <Structure Qty="0004" >
                <LongUnsigned Value="0008" />
                <OctetString Value="0000010000FF" />
                <Integer Value="02" />
                <LongUnsigned Value="0000" />
            </Structure>
            <Structure Qty="0004" >
                <LongUnsigned Value="0001" />
                <OctetString Value="0004600A03FF" />
                <Integer Value="02" />
                <LongUnsigned Value="0000" />
            </Structure>
            <Structure Qty="0004" >
                <LongUnsigned Value="0004" />
                <OctetString Value="0004180201FF" />
                <Integer Value="02" />
                <LongUnsigned Value="0000" />
            </Structure>
        </Array>
    </Data>
(28) .capture_period PASSED
    <Data>
        <DoubleLongUnsigned Value="00000E10" />
    </Data>

```

</Data>		
(29) .sort_method		PASSED
<Data>		
<Enum Value="01" />		
</Data>		
(30) .sort_object		PASSED
<Data>		
<Structure Qty="0004" >		
<LongUnsigned Value="0008" />		
<OctetString Value="0000010000FF" />		
<Integer Value="02" />		
<LongUnsigned Value="0000" />		
</Structure>		
</Data>		
(31) .entries_in_use		PASSED
<Data>		
<DoubleLongUnsigned Value="0000001A" />		
</Data>		
(32) .profile_entries		PASSED
<Data>		
<DoubleLongUnsigned Value="00000168" />		
</Data>		

Test Case 16 : Ext. M - M-Bus Control Logs, 40 item(s)		

Mngmt Get M-Bus Master Control log object 1 0-1:24.5.0.255 (@1941)		
(1) .logical_name		PASSED
<Data>		
<OctetString Value="0001180500FF" />		
</Data>		
(2) .buffer		PASSED
Earliest date: 12-MAR-2018 12:55:42, latest date: 15-MAY-2018 09:24:20		
Middle date: 15-MAY-2018 09:24:05		
(3) .capture_objects		PASSED
<Data>		
<Array Qty="0002" >		
<Structure Qty="0004" >		
<LongUnsigned Value="0008" />		
<OctetString Value="0000010000FF" />		
<Integer Value="02" />		
<LongUnsigned Value="0000" />		
</Structure>		
<Structure Qty="0004" >		
<LongUnsigned Value="0001" />		
<OctetString Value="0001600B04FF" />		
<Integer Value="02" />		
<LongUnsigned Value="0000" />		
</Structure>		
</Array>		
</Data>		
(4) .capture_period		PASSED
<Data>		
<DoubleLongUnsigned Value="00000000" />		
</Data>		
(5) .sort_method		PASSED
<Data>		
<Enum Value="01" />		
</Data>		
(6) .sort_object		PASSED
<Data>		
<Structure Qty="0004" >		
<LongUnsigned Value="0008" />		
<OctetString Value="0000010000FF" />		
<Integer Value="02" />		
<LongUnsigned Value="0000" />		
</Structure>		
</Data>		
(7) .entries_in_use		PASSED
<Data>		
<DoubleLongUnsigned Value="00000008" />		
</Data>		

(8) .profile_entries	PASSED
<Data>	
<DoubleLongUnsigned Value="0000000C" />	
</Data>	
Mngmt Get M-Bus Master Control log object 2 0-2:24.5.0.255 (@1952)	
(9) .logical_name	PASSED
<Data>	
<OctetString Value="0002180500FF" />	
</Data>	
(10) .buffer	PASSED
Earliest date: 12-MAR-2018 12:55:43, latest date: 15-MAY-2018 09:24:53	
Middle date: 15-MAY-2018 09:24:39	
(11) .capture_objects	PASSED
<Data>	
<Array Qty="0002" >	
<Structure Qty="0004" >	
<LongUnsigned Value="0008" />	
<OctetString Value="0000010000FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
<Structure Qty="0004" >	
<LongUnsigned Value="0001" />	
<OctetString Value="0002600B04FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
</Array>	
</Data>	
(12) .capture_period	PASSED
<Data>	
<DoubleLongUnsigned Value="00000000" />	
</Data>	
(13) .sort_method	PASSED
<Data>	
<Enum Value="01" />	
</Data>	
(14) .sort_object	PASSED
<Data>	
<Structure Qty="0004" >	
<LongUnsigned Value="0008" />	
<OctetString Value="0000010000FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	
</Data>	
(15) .entries_in_use	PASSED
<Data>	
<DoubleLongUnsigned Value="00000008" />	
</Data>	
(16) .profile_entries	PASSED
<Data>	
<DoubleLongUnsigned Value="0000000C" />	
</Data>	
Mngmt Get M-Bus Master Control log object 3 0-3:24.5.0.255 (@1963)	
(17) .logical_name	PASSED
<Data>	
<OctetString Value="0003180500FF" />	
</Data>	
(18) .buffer	PASSED
Earliest date: 12-MAR-2018 12:55:44, latest date: 15-MAY-2018 09:25:26	
Middle date: 15-MAY-2018 09:25:11	
(19) .capture_objects	PASSED
<Data>	
<Array Qty="0002" >	
<Structure Qty="0004" >	
<LongUnsigned Value="0008" />	
<OctetString Value="0000010000FF" />	
<Integer Value="02" />	
<LongUnsigned Value="0000" />	
</Structure>	

```

        <Structure Qty="0004" >
            <LongUnsigned Value="0001" />
            <OctetString Value="0003600B04FF" />
            <Integer Value="02" />
            <LongUnsigned Value="0000" />
        </Structure>
    </Array>
</Data>
(20) .capture_period PASSED
    <Data>
        <DoubleLongUnsigned Value="00000000" />
    </Data>
(21) .sort_method PASSED
    <Data>
        <Enum Value="01" />
    </Data>
(22) .sort_object PASSED
    <Data>
        <Structure Qty="0004" >
            <LongUnsigned Value="0008" />
            <OctetString Value="0000010000FF" />
            <Integer Value="02" />
            <LongUnsigned Value="0000" />
        </Structure>
    </Data>
(23) .entries_in_use PASSED
    <Data>
        <DoubleLongUnsigned Value="00000008" />
    </Data>
(24) .profile_entries PASSED
    <Data>
        <DoubleLongUnsigned Value="0000000C" />
    </Data>

Mngmt Get M-Bus Master Control log object 4 0-4:24.5.0.255 (@1974)
(25) .logical_name PASSED
    <Data>
        <OctetString Value="0004180500FF" />
    </Data>
(26) .buffer PASSED
    Earliest date: 12-MAR-2018 12:55:45, latest date: 15-MAY-2018 09:26:54
    Middle date: 15-MAY-2018 09:25:47
(27) .capture_objects PASSED
    <Data>
        <Array Qty="0002" >
            <Structure Qty="0004" >
                <LongUnsigned Value="0008" />
                <OctetString Value="0000010000FF" />
                <Integer Value="02" />
                <LongUnsigned Value="0000" />
            </Structure>
            <Structure Qty="0004" >
                <LongUnsigned Value="0001" />
                <OctetString Value="0004600B04FF" />
                <Integer Value="02" />
                <LongUnsigned Value="0000" />
            </Structure>
        </Array>
    </Data>
(28) .capture_period PASSED
    <Data>
        <DoubleLongUnsigned Value="00000000" />
    </Data>
(29) .sort_method PASSED
    <Data>
        <Enum Value="01" />
    </Data>
(30) .sort_object PASSED
    <Data>
        <Structure Qty="0004" >
            <LongUnsigned Value="0008" />
            <OctetString Value="0000010000FF" />
            <Integer Value="02" />
        </Structure>
    </Data>

```

<pre> <LongUnsigned Value="0000" /> </Structure> </Data> (31) .entries_in_use <Data> <DoubleLongUnsigned Value="00000008" /> </Data> (32) .profile_entries <Data> <DoubleLongUnsigned Value="0000000C" /> </Data> Mngmt Get M-Bus Event Log 0-0:99.98.3.255 (@1989) (33) .logical_name <Data> <OctetString Value="0000636203FF" /> </Data> (34) .buffer Earliest date: 27-JUN-2018 11:29:11, latest date: 27-JUN-2018 13:00:03 Middle date: 27-JUN-2018 12:30:00 (35) .capture_objects <Data> <Array Qty="0002" > <Structure Qty="0004" > <LongUnsigned Value="0008" /> <OctetString Value="0000010000FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> <Structure Qty="0004" > <LongUnsigned Value="0001" /> <OctetString Value="0000600B03FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> </Array> </Data> (36) .capture_period <Data> <DoubleLongUnsigned Value="00000000" /> </Data> (37) .sort_method <Data> <Enum Value="01" /> </Data> (38) .sort_object <Data> <Structure Qty="0004" > <LongUnsigned Value="0008" /> <OctetString Value="0000010000FF" /> <Integer Value="02" /> <LongUnsigned Value="0000" /> </Structure> </Data> (39) .entries_in_use <Data> <DoubleLongUnsigned Value="0000001E" /> </Data> (40) .profile_entries <Data> <DoubleLongUnsigned Value="0000001E" /> </Data> </pre>		PASSED
<pre> ***** Test Case 17 : Ext. M - M-Bus Disconnect, 22 item(s) ***** Mngmt Get M-Bus Master Disconnect control object 1 0-1:24.4.0.255 (@1882) (1) .logical_name <Data> <OctetString Value="0001180400FF" /> </Data> (2) .output_state </pre>		PASSED

```

        <Data>
        <Boolean Value="01" />
    </Data>
(3) .control_state PASSED
    <Data>
    <Enum Value="02" />
    </Data>
(4) .control_mode PASSED
    <Data>
    <Enum Value="01" />
    </Data>

Mngmt Get M-Bus Master Disconnect control object 2 0-2:24.4.0.255 (@1890)
(5) .logical_name PASSED
    <Data>
    <OctetString Value="0002180400FF" />
    </Data>
(6) .output_state PASSED
    <Data>
    <Boolean Value="01" />
    </Data>
(7) .control_state PASSED
    <Data>
    <Enum Value="02" />
    </Data>
(8) .control_mode PASSED
    <Data>
    <Enum Value="01" />
    </Data>

Mngmt Get M-Bus Master Disconnect control object 3 0-3:24.4.0.255 (@1898)
(9) .logical_name PASSED
    <Data>
    <OctetString Value="0003180400FF" />
    </Data>
(10) .output_state PASSED
    <Data>
    <Boolean Value="01" />
    </Data>
(11) .control_state PASSED
    <Data>
    <Enum Value="02" />
    </Data>
(12) .control_mode PASSED
    <Data>
    <Enum Value="01" />
    </Data>

Mngmt Get M-Bus Master Disconnect control object 4 0-4:24.4.0.255 (@1906)
(13) .logical_name PASSED
    <Data>
    <OctetString Value="0004180400FF" />
    </Data>
(14) .output_state PASSED
    <Data>
    <Boolean Value="01" />
    </Data>
(15) .control_state PASSED
    <Data>
    <Enum Value="02" />
    </Data>
(16) .control_mode PASSED
    <Data>
    <Enum Value="01" />
    </Data>

Mngmt Get M-Bus Disconnect control scheduler 0-1:15.0.1.255 (@1914)
(17) .logical_name PASSED
    <Data>
    <OctetString Value="00010F0001FF" />
    </Data>
(18) .executed_script PASSED
    <Data>

```

```

        <Structure Qty="0002" >
            <OctetString Value="00010A006AFF" />
            <LongUnsigned Value="0001" />
        </Structure>
    </Data>
(19) .type PASSED
    <Data>
        <Enum Value="01" />
    </Data>
(20) .execution_time PASSED
    <Data>
        <Array Qty="0001" >
            <Structure Qty="0002" >
                <OctetString Value="FFFFFFFF" />
                <OctetString Value="FFFFFFFF" />
            </Structure>
        </Array>
    </Data>

Mngmt Get M-Bus Disconnecter script table 0-1:10.0.106.255 (@1920)
(21) .logical_name PASSED
    <Data>
        <OctetString Value="00010A006AFF" />
    </Data>
(22) .scripts PASSED
    <Data>
        <Array Qty="0010" >
            <Structure Qty="0002" >
                <LongUnsigned Value="0001" />
                <Array Qty="0001" >
                    <Structure Qty="0005" >
                        <Enum Value="01" />
                        <LongUnsigned Value="0046" />
                        <OctetString Value="0001180400FF" />
                        <Integer Value="03" />
                        <Enum Value="02" />
                    </Structure>
                </Array>
            </Structure>
            <Structure Qty="0002" >
                <LongUnsigned Value="0002" />
                <Array Qty="0001" >
                    <Structure Qty="0005" >
                        <Enum Value="01" />
                        <LongUnsigned Value="0046" />
                        <OctetString Value="0001180400FF" />
                        <Integer Value="03" />
                        <Enum Value="01" />
                    </Structure>
                </Array>
            </Structure>
            <Structure Qty="0002" >
                <LongUnsigned Value="0003" />
                <Array Qty="0001" >
                    <Structure Qty="0005" >
                        <Enum Value="01" />
                        <LongUnsigned Value="0046" />
                        <OctetString Value="0002180400FF" />
                        <Integer Value="03" />
                        <Enum Value="02" />
                    </Structure>
                </Array>
            </Structure>
            <Structure Qty="0002" >
                <LongUnsigned Value="0004" />
                <Array Qty="0001" >
                    <Structure Qty="0005" >
                        <Enum Value="01" />
                        <LongUnsigned Value="0046" />
                        <OctetString Value="0002180400FF" />
                        <Integer Value="03" />
                        <Enum Value="01" />
                    </Structure>
                </Array>
            </Structure>
        </Array>
    </Data>

```

```

</Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0005" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="01" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0003180400FF" />
      <Integer Value="03" />
      <Enum Value="02" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0006" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="01" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0003180400FF" />
      <Integer Value="03" />
      <Enum Value="01" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0007" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="01" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0004180400FF" />
      <Integer Value="03" />
      <Enum Value="02" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0008" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="01" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0004180400FF" />
      <Integer Value="03" />
      <Enum Value="01" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0009" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0001180400FF" />
      <Integer Value="01" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000A" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0001180400FF" />
      <Integer Value="02" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
</Array>

```

```

</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000B" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0002180400FF" />
      <Integer Value="01" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000C" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0002180400FF" />
      <Integer Value="02" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000D" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0003180400FF" />
      <Integer Value="01" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000E" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0003180400FF" />
      <Integer Value="02" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="000F" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0004180400FF" />
      <Integer Value="01" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>
<Structure Qty="0002" >
  <LongUnsigned Value="0010" />
  <Array Qty="0001" >
    <Structure Qty="0005" >
      <Enum Value="02" />
      <LongUnsigned Value="0046" />
      <OctetString Value="0004180400FF" />
      <Integer Value="02" />
      <Integer Value="00" />
    </Structure>
  </Array>
</Structure>

```

```

        </Array>
    </Data>

*****
Test Case 18 : FIT Push, 3 item(s)
*****
    (1) Push on installation                                     PASSED
    (2) Push on alarm                                           PASSED
    (3) Push on power down                                       PASSED

*****
Test Case 19 : FIT Miscellaneous, 4 item(s)
*****
    (1) Disconnecter Script Table                               PASSED
    (2) Load profile with period 1 DST ambiguity               PASSED
    (3) Load profile power down withing one period             PASSED
    (4) Load profile power down over two periods               PASSED

*****
* CTI *
*****

//*****
// * CTI ISK AM550T LTE *
// * * *
// * * *
// * 2018-05-29 *
// * * *
//*****

// Conformance Test Information (CTI) Template
// Bas Roelofsen, 29-05-2018

// The CTI has a specified synPSK

// Mandatory 'Manufacturer' structure
// *****
Manufacturer = {
    // Keep the leading '\' to denote a visible-string.
    Name = '\Iskraemeco'
    // The manufacturer's FLAG id is a part of the DUT system title
    ThreeLettersId = '\ISK'
}

// Mandatory 'DeviceUnderTest' structure
// *****
DeviceUnderTest = {
    Type = '\ISK AM550-T + AC150-A5'

    // IDISDeviceType is 100 or 101, it is part of the DUT system title
    // IDISDeviceType = 100 //mono
    IDISDeviceType = 103 //tri New type is required or the G3 meter has to configured as 103.
    // From system perspective it make more sense to have different type.

    Check specs.

    // IDISFunctionType indicates the extension(s) supported by the DUT,
    // it is also a part of the DUT system title.
    // It is a set (possibly empty) of elements
    // Extension_D, Extension_L and Extension_M
    IDISFunctionType = [Extension_D, Extension_L, Extension_M] // [Extension_D, Extension_L,
    Extension_M]

    // The serial number of the DUT is part of its system title.
    SerialNr = 23567788 //01179648 14396101

    // (Optional) IPVersion indicates what IP related objects of the OM are tested: objects
    marked as M-I4 are
    // tested when IPVersion = IPv4, the same holds for M-I6 and IPVersion = IPv6
    IPVersion = IPv4 // one of IPv4, IPv6

    // (Optional) DataLinkLayer indicates what DL related objects of the OM are tested: objects
    marked as M-G are
    // tested when DataLinkLayer = GPRS, the same holds for M-E and ETHERNET

```

```

DataLinkLayer = GPRS // one of GPRS, ETHERNET, G3

// (Optional) ConsumerInformationPush indicates that the related feature is implemented.
Objects maked as M-C are
// tested then the value is TRUE
ConsumerInformationPush = TRUE // true or false

//EUI64Address = "000CBBFFFE000005"

SMSSupported = TRUE

ClipCallSupported = TRUE

}

// Optional 'TestOptions'
TestOptions = {
// DUTTelNr = '\+41419536544'
// DUTIPAddress = '\10.253.49.12'
}

// Mandatory 'ObjectMode' structure
// *****
// It defines the variant of the object model that the iCTT uses for testing.
ObjectModel = {
// Optional objects implemented
OptionalObjects = '\
+ '1-0:0.9.1.255|1,' // Local Time (@86)
+ '1-0:0.9.2.255|1,' // Local Date (@90)
+ '0-2:96.3.10.255|70,' // Load Mgmt - Relay control 2 (@217)
+ '1-1:0.2.0.255|1,' // Active firmware identifier 1 (@420)
+ '1-1:0.2.8.255|1,' // Active firmware signature 1 (@424)
+ '1-0:9.8.0.255|3,' // Apparent energy import (+VA) (QI+QIV) (@497)
+ '1-0:10.8.0.255|3,' // Apparent energy export (-VA) (QII+QIII) (@503)
+ '1-0:5.8.1.255|3,' // Reactive energy (QI) rate 1 (@606)
+ '1-0:5.8.2.255|3,' // Reactive energy (QI) rate 2 (@612)
+ '1-0:5.8.3.255|3,' // Reactive energy (QI) rate 3 (@618)
+ '1-0:5.8.4.255|3,' // Reactive energy (QI) rate 4 (@624)
+ '1-0:6.8.1.255|3,' // Reactive energy (QII) rate 1 (@630)
+ '1-0:6.8.2.255|3,' // Reactive energy (QII) rate 2 (@636)
+ '1-0:6.8.3.255|3,' // Reactive energy (QII) rate 3 (@642)
+ '1-0:6.8.4.255|3,' // Reactive energy (QII) rate 4 (@648)
+ '1-0:7.8.1.255|3,' // Reactive energy (QIII) rate 1 (@654)
+ '1-0:7.8.2.255|3,' // Reactive energy (QIII) rate 2 (@660)
+ '1-0:7.8.3.255|3,' // Reactive energy (QIII) rate 3 (@666)
+ '1-0:7.8.4.255|3,' // Reactive energy (QIII) rate 4 (@672)
+ '1-0:8.8.1.255|3,' // Reactive energy (QIV) rate 1 (@678)
+ '1-0:8.8.2.255|3,' // Reactive energy (QIV) rate 2 (@684)
+ '1-0:8.8.3.255|3,' // Reactive energy (QIV) rate 3 (@690)
+ '1-0:8.8.4.255|3,' // Reactive energy (QIV) rate 4 (@696)
+ '1-0:9.8.1.255|3,' // Apparent energy import (+VA) rate 1 (@702)
+ '1-0:9.8.2.255|3,' // Apparent energy import (+VA) rate 2 (@708)
+ '1-0:9.8.3.255|3,' // Apparent energy import (+VA) rate 3 (@714)
+ '1-0:9.8.4.255|3,' // Apparent energy import (+VA) rate 4 (@720)
+ '1-0:10.8.1.255|3,' // Apparent energy export (-VA) rate 1 (@726)
+ '1-0:10.8.2.255|3,' // Apparent energy export (-VA) rate 2 (@732)
+ '1-0:10.8.3.255|3,' // Apparent energy export (-VA) rate 3 (@738)
+ '1-0:10.8.4.255|3,' // Apparent energy export (-VA) rate 4 (@744)
+ '1-0:15.8.1.255|3,' // Active energy Combined total (|+A|+|-A|) rate 1 (@750)
+ '1-0:15.8.2.255|3,' // Active energy Combined total (|+A|+|-A|) rate 2 (@756)
+ '1-0:15.8.3.255|3,' // Active energy Combined total (|+A|+|-A|) rate 3 (@762)
+ '1-0:15.8.4.255|3,' // Active energy Combined total (|+A|+|-A|) rate 4 (@768)
+ '1-0:9.4.0.255|5,' // Demand Register 5 - Apparent energy import (+VA) (@827)
+ '1-0:10.4.0.255|5,' // Demand Register 6 - Apparent energy export (-VA) (@840)
+ '1-0:1.5.0.255|4,' // Last Average Demand Register 1 - Active energy import (+A) (@853)
+ '1-0:2.5.0.255|4,' // Last Average Demand Register 2 - Active energy export (-A)
(@861)
+ '1-0:3.5.0.255|4,' // Last Average Demand Register 3 - Reactive energy import (+R)
(@869)
+ '1-0:4.5.0.255|4,' // Last Average Demand Register 4 - Reactive energy export (-R)
(@877)

```

```

+ '1-0:9.5.0.255|4,' // Last Average Demand Register 5 - Apparent energy import (+VA)
(@885)
+ '1-0:10.5.0.255|4,' // Last Average Demand Register 6 - Apparent energy export (-VA)
(@893)
+ '1-0:9.6.0.255|4,' // Maximum Demand Register 21 - Apparent energy import (+VA) (@1061)
+ '1-0:9.6.1.255|4,' // Maximum Demand Register 22 - Apparent energy import (+VA) - rate
1 (@1069)
+ '1-0:9.6.2.255|4,' // Maximum Demand Register 23 - Apparent energy import (+VA) - rate
2 (@1077)
+ '1-0:9.6.3.255|4,' // Maximum Demand Register 24 - Apparent energy import (+VA) - rate
3 (@1085)
+ '1-0:9.6.4.255|4,' // Maximum Demand Register 25 - Apparent energy import (+VA) - rate
4 (@1093)
+ '1-0:10.6.0.255|4,' // Maximum Demand Register 26 - Apparent energy export (-VA)
(@1101)
+ '1-0:10.6.1.255|4,' // Maximum Demand Register 27 - Apparent energy export (-VA) - rate
1 (@1109)
+ '1-0:10.6.2.255|4,' // Maximum Demand Register 28 - Apparent energy export (-VA) - rate
2 (@1117)
+ '1-0:10.6.3.255|4,' // Maximum Demand Register 29 - Apparent energy export (-VA) - rate
3 (@1125)
+ '1-0:10.6.4.255|4,' // Maximum Demand Register 30 - Apparent energy export (-VA) - rate
4 (@1133)
+ '1-0:14.7.0.255|3,' // Instantaneous net frequency; any phase (@1450)
+ '1-0:9.7.0.255|3,' // Instantaneous apparent import power (+VA) (@1486)
+ '1-0:10.7.0.255|3,' // Instantaneous apparent export power (-VA) (@1492)
+ '1-0:16.24.0.255|5,' // Average Net Power (|+A|-|-A|) (@1511)
+ '1-0:13.7.0.255|3,' // Instantaneous Power factor (+A/+VA) (@1537)
+ '1-0:13.5.0.255|4,' // Last Average Power factor (+A/+VA) (@1543)
+ '1-0:13.3.0.255|4,' // Minimum Power factor (+A/+VA) (@1551)
+ '1-0:0.8.2.255|3,' // Measurement Period 3 for Instantaneous values (@1559)
+ '0-0:20.0.0.255|19,' // IEC local port setup - IEC Optical port (@2001)
+ '0-5:25.9.0.255|40' // Push setup - On Power down (@2129)

InstanceExtraInfo = {
// Current association (@9)
LogicalName = '0-0:40.0.0.255'
ClassId = 15
AttributeExtraInfo = {
// authentication_mechanism_name
AttributeId = 6
AccessRights = [GET,SET]
SetData = '<Data><OctetString Value="60857405080200" /></Data>'
}
MethodExtraInfo = {
// change_HLS_secret
MethodId = 2
AccessRights = [ACTION]
}
}

InstanceExtraInfo = {
// Activity Calendar (@112)
LogicalName = '0-0:13.0.0.255'
ClassId = 20
MethodExtraInfo = {
// activate_passive_calendar
MethodId = 1
AccessRights = [ACTION]
}
}

InstanceExtraInfo = {
// Register activation - Energy (@129)
LogicalName = '0-0:14.0.1.255'
ClassId = 6
AttributeExtraInfo = {
// register_assignment
AttributeId = 2
AccessRights = [GET,SET]
}
}

```

```

InstanceExtraInfo = {
    // Register activation - Maximum Demand (@135)
    LogicalName = '0-0:14.0.2.255'
    ClassId = 6
    AttributeExtraInfo = {
        // register_assignment
        AttributeId = 2
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Tariffication script table (@141)
    LogicalName = '0-0:10.0.100.255'
    ClassId = 9
    MethodExtraInfo = {
        // execute
        MethodId = 1
        AccessRights = [ACTION]
    }
}

InstanceExtraInfo = {
    // Predefined Scripts - MDI reset / end of billing period (@147)
    LogicalName = '0-0:10.0.1.255'
    ClassId = 9
    AttributeExtraInfo = {
        // scripts
        AttributeId = 2
        AccessRights = [GET]
    }
}

InstanceExtraInfo = {
    // End of billing period 1 scheduler (@152)
    LogicalName = '0-0:15.0.0.255'
    ClassId = 22
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Disconnect control scheduler (@170)
    LogicalName = '0-0:15.0.1.255'
    ClassId = 22
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Load Mgmt - Relay control 1 (@209)
    LogicalName = '0-1:96.3.10.255'
    ClassId = 70
    AttributeExtraInfo = {
        // control_mode
        AttributeId = 4
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Load Mgmt - Relay control 2 (@217)
    LogicalName = '0-2:96.3.10.255'
    ClassId = 70
    AttributeExtraInfo = {
        // control_mode
        AttributeId = 4

```

```

        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Limiter (@225)
    LogicalName = '0-0:17.0.0.255'
    ClassId = 71
    AttributeExtraInfo = {
        // actions
        AttributeId = 11
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Image transfer activation scheduler (@401)
    LogicalName = '0-0:15.0.2.255'
    ClassId = 22
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Predefined Scripts - Image activation (@407)
    LogicalName = '0-0:10.0.107.255'
    ClassId = 9
    AttributeExtraInfo = {
        // scripts
        AttributeId = 2
        AccessRights = [GET]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:97.98.0.255'
    ClassId = 1
    AttributeExtraInfo = {
        AttributeId = 2
        SetData = '\<Data><DoubleLongUnsigned Value = "00000000" /></Data>'
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:97.98.1.255'
    ClassId = 1
    AttributeExtraInfo = {
        AttributeId = 2
        SetData = '\<Data><DoubleLongUnsigned Value = "00000000" /></Data>'
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:98.1.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

```

```

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.1.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.2.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.3.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.4.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:99.98.5.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    // Load profile with period 1 i.e. General Load Profile (@1146)
    LogicalName = '1-0:99.1.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
    AttributeExtraInfo = {
        // profile_entries
        AttributeId = 8
        AccessRights = [GET,SET]
        SetData = '\<Data><DoubleLongUnsigned Value = "00000000" /></Data>'
    }
}

InstanceExtraInfo = {
    // Load profile with period 2 i.e. Daily Values Profile (@1161)
    LogicalName = '1-0:99.2.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
    AttributeExtraInfo = {
        // profile_entries
        AttributeId = 8
        AccessRights = [GET,SET]
    }
}

```

```

        SetData = '\<Data><DoubleLongUnsigned Value = "00000000" /></Data>'
    }
}

InstanceExtraInfo = {
    LogicalName = '1-0:99.97.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-1:24.3.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-2:24.3.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-3:24.3.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-4:24.3.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-1:24.5.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-2:24.5.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-3:24.5.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

```

```

    }
}

InstanceExtraInfo = {
    LogicalName = '0-4:24.5.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        AttributeId = 2
        SelectiveAccessSelectors = [By_Range,By_Entry]
    }
}

InstanceExtraInfo = {
    // M-Bus client channel 1 (@1574)
    LogicalName = '0-1:24.1.0.255'
    ClassId = 72
    MethodExtraInfo = {
        // capture
        MethodId = 3
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // reset_alarm
        MethodId = 4
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // synchronize_clock
        MethodId = 5
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // data_send
        MethodId = 6
        AccessRights = [ACTION]
    }
}

InstanceExtraInfo = {
    // M-Bus client channel 2 (@1596)
    LogicalName = '0-2:24.1.0.255'
    ClassId = 72
    MethodExtraInfo = {
        // capture
        MethodId = 3
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // reset_alarm
        MethodId = 4
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // synchronize_clock
        MethodId = 5
        AccessRights = [ACTION]
    }
    MethodExtraInfo = {
        // data_send
        MethodId = 6
        AccessRights = [ACTION]
    }
}

InstanceExtraInfo = {
    // M-Bus client channel 3 (@1618)
    LogicalName = '0-3:24.1.0.255'
    ClassId = 72
    MethodExtraInfo = {
        // capture
        MethodId = 3
        AccessRights = [ACTION]
    }
}

```

```

        MethodExtraInfo = {
            // reset_alarm
            MethodId = 4
            AccessRights = [ACTION]
        }
        MethodExtraInfo = {
            // synchronize_clock
            MethodId = 5
            AccessRights = [ACTION]
        }
        MethodExtraInfo = {
            // data_send
            MethodId = 6
            AccessRights = [ACTION]
        }
    }

    InstanceExtraInfo = {
        // M-Bus client channel 4 (@1640)
        LogicalName = '0-4:24.1.0.255'
        ClassId = 72
        MethodExtraInfo = {
            // capture
            MethodId = 3
            AccessRights = [ACTION]
        }
        MethodExtraInfo = {
            // reset_alarm
            MethodId = 4
            AccessRights = [ACTION]
        }
        MethodExtraInfo = {
            // synchronize_clock
            MethodId = 5
            AccessRights = [ACTION]
        }
        MethodExtraInfo = {
            // data_send
            MethodId = 6
            AccessRights = [ACTION]
        }
    }

    InstanceExtraInfo = {
        // M-Bus Disconnect control scheduler (@1914)
        LogicalName = '0-1:15.0.1.255'
        ClassId = 22
        AttributeExtraInfo = {
            // type
            AttributeId = 3
            AccessRights = [GET, SET]
        }
    }

    InstanceExtraInfo = {
        // Push script table (@2139)
        LogicalName = '0-0:10.0.108.255'
        ClassId = 9
        AttributeExtraInfo = {
            // scripts
            AttributeId = 2
            AccessRights = [GET, SET]
        }
    }

    InstanceExtraInfo = {
        // Push action scheduler - Interval_1 (@2144)
        LogicalName = '0-1:15.0.4.255'
        ClassId = 22
        AttributeExtraInfo = {
            // executed_script
            AttributeId = 2
            AccessRights = [GET, SET]
        }
    }

```

```

    }
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Push action scheduler - Interval_2 (@2150)
    LogicalName = '0-2:15.0.4.255'
    ClassId = 22
    AttributeExtraInfo = {
        // executed_script
        AttributeId = 2
        AccessRights = [GET,SET]
    }
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Push action scheduler - Interval_3 (@2156)
    LogicalName = '0-3:15.0.4.255'
    ClassId = 22
    AttributeExtraInfo = {
        // executed_script
        AttributeId = 2
        AccessRights = [GET,SET]
    }
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Push action scheduler - Consumer Information
    LogicalName = '0-4:15.0.4.255'
    ClassId = 22
    AttributeExtraInfo = {
        // executed_script
        AttributeId = 2
        AccessRights = [GET,SET]
    }
    AttributeExtraInfo = {
        // type
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Auto connect (@2163)
    LogicalName = '0-0:2.1.0.255'
    ClassId = 29
    AttributeExtraInfo = {
        // destination_list
        AttributeId = 6
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    LogicalName = '0-0:96.13.0.255'
    ClassId = 1
    AttributeExtraInfo = {
        AttributeId = 2
        SetData = '\<Data><OctetString Value="49534B5241454D45434F" /></Data>'
    }
}

```

```

    }

    InstanceExtraInfo = {
        LogicalName = '0-0:20.0.0.255'
        ClassId = 19
        AttributeExtraInfo = {
            AttributeId = 7
            SetData = '\<Data><OctetString Value="3132333435363738" /></Data>'
        }
        AttributeExtraInfo = {
            AttributeId = 8
            SetData = '\<Data><OctetString Value="3132333435363738" /></Data>'
        }
        AttributeExtraInfo = {
            AttributeId = 9
            SetData = '\<Data><OctetString Value="3132333435363738" /></Data>'
        }
    }

    InstanceExtraInfo = {
        // G3-PLC MAC Setup (@2217)
        LogicalName = '0-0:29.1.0.255'
        ClassId = 91
        AttributeExtraInfo = {
            // mac_key_table
            AttributeId = 5
            SetData = '\<Data>'
+           <Array Qty="01" >'
+           <Structure Qty="02" >'
+           <Unsigned Value="00" />'
+           <OctetString Value="00112233445566778899AABBCCDDEEFF" />'
+           </Structure>'
+           </Array>'
+           </Data>'
        }
    }

    InstanceExtraInfo = {
        // Set special days to 30 entries
        LogicalName = '0-0:11.0.0.255'
        ClassId = 11
        AttributeExtraInfo = {
            AttributeId = 2
            SetData = '\<Data>'
+           <Array Qty="0F" >'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'
+           <OctetString Value="FFFF0101FF" />'
+           <Unsigned Value="02" />'
+           </Structure>'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'
+           <OctetString Value="FFFF0102FF" />'
+           <Unsigned Value="02" />'
+           </Structure>'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'
+           <OctetString Value="FFFF0103FF" />'
+           <Unsigned Value="02" />'
+           </Structure>'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'
+           <OctetString Value="FFFF0104FF" />'
+           <Unsigned Value="02" />'
+           </Structure>'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'
+           <OctetString Value="FFFF0105FF" />'
+           <Unsigned Value="02" />'
+           </Structure>'
+           <Structure Qty="03" >'
+           <LongUnsigned Value="0001" />'

```

```

+       <OctetString Value="FFFF0106FF" />'
+       <Unsigned Value="02" />'
+     </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF0107FF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF0108FF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF0109FF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010AFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010BFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010CFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010DFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010EFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+   <Structure Qty="03" >'
+     <LongUnsigned Value="0001" />'
+     <OctetString Value="FFFF010FFF" />'
+     <Unsigned Value="02" />'
+   </Structure>'
+ </Array>'
+ </Data>'
+ }
}

InstanceExtraInfo = {
// Set clock to 27/06/2018 10:00:00
LogicalName = '0-0:1.0.0.255'
ClassId = 8
AttributeExtraInfo = {
AttributeId = 2
SetData = '\<Data><OctetString Value="07E2061B030C0000FF8000FF" /></Data>' // yyyy mm
dd dow hh mm ss
}
}
}

// Mandatory ''TestParameters'' structure
// *****
// Defines miscellaneous values used during the test
TestParameters = {
// 'DisableDiscoveryStart' when true, prevents the iCTT from starting
// a discovery procedure on the Data Concentrator.
// DisabledDiscoveryStart = FALSE
// When starting a test session, iCTT optionally starts a discovery and then polls

```

```
// the meters network until it finds the meter specified by 'MeterId'.
// This polling will last at least the specified time (in ms).
// MeterDiscoveryTimeout = 240000 Package 1

// The 'DefaultAccessTimeout' is the time (in ms) allowed to complete an
// access (read, write or action)
// DefaultAccessTimeout = 360000 Package 1

// The accesses have a priority between 1 (highest priority) and 10 (lowest priority)
// DefaultPriority = 1 Package 1

// Optional delay (in ms) after executing the Disconnect Control (class 70)
// connect and disconnect actions performed directly or via a script table.
ConnectDisconnectDelay = 30000

// Mandatory Client system title
ClientSystemTitle = '58585A0102030405'

// Mandatory structure for the ImageTransfer
ImageTransfer = {
    // Image identifier as passed to the image transfer initiate method
    ImageIdentifier = '49534B2D494D472D434F4D2D49534B00'
    // Filename of the image to transfer. If no filepath is given, then the file
    // is supposed to be in the same directory as the CTI file
    ImageFileName = '\ISK550T_Application_03_3.03.011.bin' //the image file to be located in
the CTI is!

    // Time (in ms) that the iCTT loops reading the image_transfer status waiting for changes
    Timeout = 60000//in miliseconds
}

// Push timeout is the time (in ms) awaited by the iCTT for the DUT to send a
DataNotification
PushTimeout = 180000

// (Optional) Minimal Inter WPDU frames delay, is the minimal delay (in ms) between two
WPDU frames sent by the wrapper layer.
// is null if not specified
MinInterWPDUFramesDelay = 200

// (Optional) Profile periods qty is the number of entries created in the profiles by new
profiles tests
// Must be larger than 5, defaults to 6 when not specified
ProfilePeriodsQty = 10

// (Optional) Capture delay in (ms) is a delay splitted in two unequal parts, before and
after a capture.
// If we expect the DUT to make a capture at time T, then we set the clock to (T -
CaptureDelay + 5sec)
// and wait for CaptureDelay seconds for the capture to occur.
// Default to 10000 (10sec)
CaptureDelay = 15000

// (Optional) Duration (in ms) of the clip call from return of ATDT to ATH (defaults to
12000)
ClipCallDuration = 20000

// (Optional) Some AutoConnect attributes
AutoConnect = {
    Repetitions = 0
    RepetitionDelay = 0
}

PushSetup = {
    NumberOfRetries = 1
    RepetitionDelay = 30
}

WakeUpDelay = 30000
DisconnectToSendSMSDelay = 10000
DataNotificationToDisconnectDelay = 4000
}
```

```
// Mandatory 'PLCConfig' structure      Package 1
// *****
// The PLCConfig is set before each test session. The various members are
// defined in the appropriate document. The values defined hereafter are
// the default values
(* Discuss if such structure is needed for G3 tests
PLCConfig = {
    AddrMAC = 0xC00
    TimeoutNotAddr = 360
    MaxSubFrames = 7
    TimeUpdatePeriod = 0
    BkgTaskEnabled = 1
    BkgMinDelay = 60
    DiscoverTimeSlots = 20
    ResponseProbability = 100
    MaxCredit = 2
    DiscoverPeriod = 0 // was 60, disable periodic discovery
    TransmissionGain = 0
    ReceptionGain = 8
    BaudRate = 1
    InputFrequency = 0
    NbComOkDecrCredit = 3
    DecrCredit = 1
    IncrCredit = 2
    MaxRetry = 1//3
    RepeaterCallEnabled = 0
    RepeaterCallLevel = 1000
    NewBcplTSlotCount = 10
    AlarmMngtEnabled = 0 // was 1, Disable alarms
    AlarmMngtDelay = 0
    AutoDiscoveryPriority = 2
    FCTxValue = 100
}
*)

// Mandatory 'SecurityElements'
// *****
// There is one structure per client, each specifies an 'EncryptionKey'
// and a 'Policy'. An encryption key is a visible-string of 32 characters,
// with each pair encoding one byte of a 16 bytes binary key.
// Policy is one of NO_SECURITY, AUTHENTICATION, ENCRYPTION or AUTHENTICATION_AND_ENCRYPTION
// StandardSecurityElements
// Mandatory, used for the standard access (DC and Java API).
// No context name is required. The DC selects the context according
// to the 'Policy' member. If zero, then the DC generates an AARQ with LONG_NAMES context.
// If positive then the DC generates an AARQ with LONG_NAME_WITH_CIPHERING context.

// RemoteSecurityElements
// Mandatory, used when making tunneled accesses.
RemoteSecurityElements = {
    Public = {
        ContextName = LONG_NAMES
        MechanismName = LOWEST_LEVEL_SECURITY
        Policy = NO_SECURITY
    }
    Management = {
        ContextName = LONG_NAMES_WITH_CIPHERING //LONG_NAMES_WITH_CIPHERING//LONG_NAMES
        MechanismName = HIGH_LEVEL_SECURITY_GMAC //HIGH_LEVEL_SECURITY_GMAC//LOW_LEVEL_SECURITY
        Policy = AUTHENTICATION_AND_ENCRYPTION
//ENCRYPTION//NO_SECURITY//AUTHENTICATION//AUTHENTICATION_AND_ENCRYPTION
        Password = '\12345678'
    }
    PreEstablished = {
        Policy = AUTHENTICATION_AND_ENCRYPTION
//ENCRYPTION//NO_SECURITY//AUTHENTICATION//AUTHENTICATION_AND_ENCRYPTION
        ServerMaxReceivePduSize = 1200
        CipheringStyle = GENERAL
    }
}

// LocalSecurityElements
// Mandatory, used when making 'local' accesses.
```

```

LocalSecurityElements = {
    Public = {
        ContextName = LONG_NAMES
        MechanismName = LOWEST_LEVEL_SECURITY
        Policy = NO_SECURITY
    }
    Management = {
        ContextName = LONG_NAMES //LONG_NAMES WITH CIPHERING //LONG_NAMES
        MechanismName = LOW_LEVEL_SECURITY //LOWEST_LEVEL_SECURITY, LOW_LEVEL_SECURITY,
HIGH_LEVEL_SECURITY_GMAC
        Policy = NO_SECURITY
        Password = '\12345678'
    }
    PreEstablished = {
        Policy = NO_SECURITY // AUTHENTICATION_AND_ENCRYPTION
        ServerMaxReceivePduSize = 1200
        CipheringStyle = GENERAL
    }
}

// SMS security elements
// Mandatory
SMSSecurityElements = {
    PreEstablished = {
        Policy = AUTHENTICATION_AND_ENCRYPTION
        ServerMaxReceivePduSize = 138
        CipheringStyle = GENERAL
    }
}

// Parameters of the ''Local'' HDLC Profile
HDLCPProfile = {
    PhysicalLayer = {
        OpeningMode = MODE_E // or DIRECT_HDLC
        HdlcBaud = 9600
    }
    DataLinkLayer = {
        InactivityTimeout = 30000
        InterFrameTimeout = 100
        ResponseTimeout = 5000
        DISCToNDMTimeout = 5000
        AddressingSchemes = [TWO_BYTES_ADDRESSING]
        ServerLowerMACAddress = 17
    }
}

// Mandatory parameters of the ''Remote'' TCP Profile
TCPProfile = {
    ServerTCPPort = 4059
    ResponseTimeout = 60000
    ConnectTimeout = 10000
    DisconnectToConnectDelay = 10000
}

G3PLCProfile = {
    ResponseTimeout = 30000
    ConnectTimeout = 10000
    UDPPort = 61616
    PSK = "AB10341145111BC3C12DE8FF11142204"
    //PSK = "7556A426C9FFC59368AFA3DC52A3A391"
}

// END CTI_Template

*****
* Miscellaneous *
*****

TestMode: TCP
Test Plan Signature: BFC18D5882976F2087BC007B67CDC246
Object Model: IDIS-S02-002 - object model Pack2 Ed2.0 - V2.28 (20170428)-FIT MBUS
Tests G350 (CorrectedAndValve status)-2017428.xlsx

```

Fit #32

Device: Three-phase AM550 + AC150-A5 LTE

DNV-GL, Arnhem, Netherlands, 27.06.2018

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DUT system title:	49534B6771679DAC
Run number:	128