

Final Interoperability Test Report

FIT #: **117**
 Date: 29/8/2024
 Location: DNV, Arnhem, Netherlands
 Page 1 of 33

APPLICANT

Company: Landis+Gyr (Pty) Ltd

Address: 2 State Avenue, N1 Business Park, Kosmosdal Ext 7, South Africa

DEVICE		
Device type	E460 1ph DIN-Rail S3, MCA110CRG3D1.200S S3	
<i>Type indication on MID certificate</i>		<i>MID Certificate No.</i>
E460 1ph		Nmi-3578238-01
<i>IDIS Specification reference</i>	<i>DNV IDIS Certification run No</i>	<i>Digital signature of the test report.</i>
Package 2 ed. 2.0	2397	06FE194AFEF32747166D66F7CB17E615
<i>First certification</i>	<i>IDIS Label</i>	<i>Modular device</i>
<input checked="" type="checkbox"/>	0108	<input type="checkbox"/>
<i>General information about the device</i>		

FIRMWARE VERSIONS TESTED				<i>Final Interoperability Test No. 117</i>
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	Verdict
1	V750226	V750526		Passed

Honeywell

Iskraemeco d.d.

Itron

Landis+Gyr (Pty) Ltd

Fit #117

Device: Landis+Gyr E460

DNV-GL, Arnhem, Netherlands, 29.08.2024

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FIRMWARE VERSIONS HISTORY				<i>Final Integration Test</i>	
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	No.	Verdict
1	V750226	V750526		117	Passed

TEST REPORT - Firmware No. 1		
<i>Test</i>	<i>Verdict</i>	<i>Remark</i>
Connect and release	Passed	
All Device IDs	Passed	
COSEM logical device name	Passed	
SAP assignment	Passed	
FW version and signature	Passed	2 Firmware IDs, 1 Signature
All Device ID's	Passed	
Broadcast Date and time	Passed	
Broadcast Special Days Table	Passed	
Event logs	Passed	Disconnect Control N/A
Billing data period 1	Passed	
M-Bus Channel Setup	Not Tested	
M-Bus Results	Not Tested	
M-Bus Devices IDs	Not Tested	
M-Bus profiles	Not Tested	
M-Bus Load profiles	Not Tested	
M-Bus control logs	Not Tested	
M-Bus Disconnect log	Not Tested	
FIT Push	Passed	Power Off Push N/A
FIT Miscellaneous	Passed	Disconnect Script D N/A
Optical Port Connectivity	Passed	
Consumer Information Interface	Not Tested	
FIT Conformance Test Report		
<pre> ***** IDIS Conformance test report 29-AUG-2024 09:02:30 iCTT2 Package 2, Edition 2.0, Revision 1 (136) Licensed to: KEMA-IDIS Cert. Tester: Tom Levels ***** ***** * Identification * ***** Manufacturer = { Name = '\Landis + Gyr' ThreeLettersId = '\LGZ' } DeviceUnderTest = { Type = '\Landis+Gyr ZA E460 MCA110CRG3D1.200S S3' IDISDeviceType = 102 IDISFunctionType = [] SerialNr = 61159892 IPVersion = IPV6 DataLinkLayer = G3 ConsumerInformationPush = FALSE EUI64Address = '98B177FFFF2D611D' } </pre>		

Active firmware identifier (1-0:0.2.0.255) = \V750226
 Active firmware identifier 1 (1-1:0.2.0.255) = \V750526

 * Summary *

PASSED	59
FAILED	0
DISABLED	0
INAPPLICABLE	214
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="\61159892" />	
</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="\Device ID 2" />	
</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="\Device ID 3" />	
</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="\Device ID 4" />	
</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
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    <Data>
      <OctetString Value="\Device ID 5" />
    </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="\Device ID 6" />
    </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="\LGZ1020061159892" />
    </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="\LGZ1020061159892" />
        </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="\V750226" />
    </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="\54FC3CA4" />
    </Data>

Mngmt Get Active firmware identifier 1 1-1:0.2.0.255 (@420)
(5) .logical_name PASSED

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    <Data>
      <OctetString Value="0101000200FF" />
    </Data>
  (6) .value PASSED
    <Data>
      <OctetString Value="\V750526" />
    </Data>

  Mngmt Get Active firmware signature 1 1-1:0.2.8.255 (@424)
  (7) .logical_name
  INAPPLICABLE
    Optional object is not implemented
  (8) .value
  INAPPLICABLE
    Optional object is not implemented

  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="07E8081DFF100000FF8000FF" />
    </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="07E8081D04100000FF800080" />
    </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="001E" >
        <Structure Qty="0003" >
          <LongUnsigned Value="001E" />
          <OctetString Value="FFFF0101FF" />
          <Unsigned Value="02" />
        </Structure>
        <Structure Qty="0003" >
          <LongUnsigned Value="001D" />
          <OctetString Value="FFFF0102FF" />
          <Unsigned Value="02" />
        </Structure>
        <Structure Qty="0003" >
          <LongUnsigned Value="001C" />
          <OctetString Value="FFFF0103FF" />
        </Structure>
      </Array>
    </Data>

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    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="001B" />
    <OctetString Value="FFFF0104FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="001A" />
    <OctetString Value="FFFF0105FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0019" />
    <OctetString Value="FFFF0106FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0018" />
    <OctetString Value="FFFF0107FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0017" />
    <OctetString Value="FFFF0108FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0016" />
    <OctetString Value="FFFF0109FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0015" />
    <OctetString Value="FFFF010AFF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0014" />
    <OctetString Value="FFFF0201FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0013" />
    <OctetString Value="FFFF0202FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0012" />
    <OctetString Value="FFFF0203FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0011" />
    <OctetString Value="FFFF0204FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0010" />
    <OctetString Value="FFFF0205FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="000F" />
    <OctetString Value="FFFF0206FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="000E" />
    <OctetString Value="FFFF0207FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >

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    <LongUnsigned Value="000D" />
    <OctetString Value="FFFF0208FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="000C" />
    <OctetString Value="FFFF0209FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="000B" />
    <OctetString Value="FFFF020AFF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="000A" />
    <OctetString Value="FFFF0301FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0009" />
    <OctetString Value="FFFF0302FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0008" />
    <OctetString Value="FFFF0303FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0007" />
    <OctetString Value="FFFF0304FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0006" />
    <OctetString Value="FFFF0305FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0005" />
    <OctetString Value="FFFF0306FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0004" />
    <OctetString Value="FFFF0307FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0003" />
    <OctetString Value="FFFF0308FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0002" />
    <OctetString Value="FFFF0309FF" />
    <Unsigned Value="02" />
  </Structure>
  <Structure Qty="0003" >
    <LongUnsigned Value="0001" />
    <OctetString Value="FFFF030AFF" />
    <Unsigned Value="02" />
  </Structure>
</Array>
</Data>

```

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

```

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

PASSED


```

<Data>
  <Array Qty="001E" >
    <Structure Qty="0003" >
      <LongUnsigned Value="001E" />
      <OctetString Value="FFFF0101FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="001D" />
      <OctetString Value="FFFF0102FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="001C" />
      <OctetString Value="FFFF0103FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="001B" />
      <OctetString Value="FFFF0104FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="001A" />
      <OctetString Value="FFFF0105FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0019" />
      <OctetString Value="FFFF0106FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0018" />
      <OctetString Value="FFFF0107FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0017" />
      <OctetString Value="FFFF0108FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0016" />
      <OctetString Value="FFFF0109FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0015" />
      <OctetString Value="FFFF010AFF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0014" />
      <OctetString Value="FFFF0201FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0013" />
      <OctetString Value="FFFF0202FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0012" />
      <OctetString Value="FFFF0203FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >
      <LongUnsigned Value="0011" />
      <OctetString Value="FFFF0204FF" />
      <Unsigned Value="02" />
    </Structure>
    <Structure Qty="0003" >

```

```

<LongUnsigned Value="0010" />
<OctetString Value="FFFF0205FF" />
<Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000F" />
  <OctetString Value="FFFF0206FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000E" />
  <OctetString Value="FFFF0207FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000D" />
  <OctetString Value="FFFF0208FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000C" />
  <OctetString Value="FFFF0209FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000B" />
  <OctetString Value="FFFF020AFF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="000A" />
  <OctetString Value="FFFF0301FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0009" />
  <OctetString Value="FFFF0302FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0008" />
  <OctetString Value="FFFF0303FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0007" />
  <OctetString Value="FFFF0304FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0006" />
  <OctetString Value="FFFF0305FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0005" />
  <OctetString Value="FFFF0306FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0004" />
  <OctetString Value="FFFF0307FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0003" />
  <OctetString Value="FFFF0308FF" />
  <Unsigned Value="02" />
</Structure>
<Structure Qty="0003" >
  <LongUnsigned Value="0002" />
  <OctetString Value="FFFF0309FF" />
  <Unsigned Value="02" />

```

```

        </Structure>
        <Structure Qty="0003" >
            <LongUnsigned Value="0001" />
            <OctetString Value="FFFF030AFF" />
            <Unsigned Value="02" />
        </Structure>
    </Array>
</Data>

*****
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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(3) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(4) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

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: 17-AUG-2024 23:59:50, latest date: 26-OCT-2025 03:15:14
    Middle date: 27-AUG-2024 23:59:50
(7) .entries_in_use PASSED
    <Data>
        <DoubleLongUnsigned Value="00000091" />
    </Data>
(8) .profile_entries PASSED
    <Data>
        <DoubleLongUnsigned Value="00000091" />
    </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: 21-AUG-2024 11:00:00, latest date: 29-AUG-2024 08:31:23
    Middle date: 26-AUG-2024 11:12:23
(11) .entries_in_use PASSED
    <Data>
        <DoubleLongUnsigned Value="00000011" />
    </Data>
(12) .profile_entries PASSED
    <Data>
        <DoubleLongUnsigned Value="00000048" />
    </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: 21-AUG-2024 11:00:00, latest date: 29-AUG-2024 08:42:34
    Middle date: 21-AUG-2024 11:01:04
(15) .entries_in_use PASSED
    <Data>
        <DoubleLongUnsigned Value="0000000A" />
    </Data>

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(16) .profile_entries	PASSED
<pre> <Data> <DoubleLongUnsigned Value="00000091" /> </Data> </pre>	
Mngmt Get Power Quality Log 0-0:99.98.4.255 (@1340)	
(17) .logical_name	PASSED
<pre> <Data> <OctetString Value="0000636204FF" /> </Data> </pre>	
(18) .buffer	PASSED
<pre> Earliest date: 21-AUG-2024 11:00:00, latest date: 21-AUG-2024 11:00:51 Middle date: 21-AUG-2024 11:00:49 </pre>	
(19) .entries_in_use	PASSED
<pre> <Data> <DoubleLongUnsigned Value="00000006" /> </Data> </pre>	
(20) .profile_entries	PASSED
<pre> <Data> <DoubleLongUnsigned Value="00000091" /> </Data> </pre>	
<pre> ***** Test Case 11 : Reading Data of Billing Period 1, 8 item(s) ***** </pre>	
Mngmt Get Data of billing period 1 0-0:98.1.0.255 (@158)	
(1) .logical_name	PASSED
<pre> <Data> <OctetString Value="0000620100FF" /> </Data> </pre>	
(2) .buffer	PASSED
<pre> Earliest date: 02-SEP-2024 00:00:00, latest date: 02-NOV-2025 00:00:00 Middle date: 02-JUN-2025 00:00:00 </pre>	
(3) .capture_objects	PASSED
<pre> <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> </pre>	
(4) .capture_period	PASSED
<pre> <Data> <DoubleLongUnsigned Value="00000000" /> </Data> </pre>	

```

(5) .sort_method PASSED
    <Data>
      <Enum Value="01" />
    </Data>
(6) .sort_object PASSED
    <Data>
      <Structure Qty="0004" >
        <LongUnsigned Value="0000" />
        <OctetString Value="000000000000" />
        <Integer Value="00" />
        <LongUnsigned Value="0000" />
      </Structure>
    </Data>
(7) .entries_in_use PASSED
    <Data>
      <DoubleLongUnsigned Value="00000013" />
    </Data>
(8) .profile_entries PASSED
    <Data>
      <DoubleLongUnsigned Value="0000002E" />
    </Data>

*****
Test Case 12 : Ext. M - M-Bus Setup LGZ G350, 52 item(s)
*****

Mngmt Get M-Bus master port setup 1 0-0:24.6.0.255 (@1566)
(1) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .comm_speed
INAPPLICABLE
    Object is not required according to OM and/or extensions

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

Mngmt Get M-Bus client channel 1 0-1:24.1.0.255 (@1574)
(5) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(6) .mbus_port_reference
INAPPLICABLE
    Object is not required according to OM and/or extensions
(7) .capture_definition
INAPPLICABLE
    Object is not required according to OM and/or extensions
(8) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(9) .primary_address
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .identification_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(11) .manufacturer_id
INAPPLICABLE
    Object is not required according to OM and/or extensions
(12) .version
INAPPLICABLE
    Object is not required according to OM and/or extensions
(13) .device_type
INAPPLICABLE
    Object is not required according to OM and/or extensions
(14) .access_number
INAPPLICABLE
    Object is not required according to OM and/or extensions

```

```

(15) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(16) .alarm
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus client channel 2 0-2:24.1.0.255 (@1596)
(17) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(18) .mbus_port_reference
INAPPLICABLE
    Object is not required according to OM and/or extensions
(19) .capture_definition
INAPPLICABLE
    Object is not required according to OM and/or extensions
(20) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(21) .primary_address
INAPPLICABLE
    Object is not required according to OM and/or extensions
(22) .identification_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(23) .manufacturer_id
INAPPLICABLE
    Object is not required according to OM and/or extensions
(24) .version
INAPPLICABLE
    Object is not required according to OM and/or extensions
(25) .device_type
INAPPLICABLE
    Object is not required according to OM and/or extensions
(26) .access_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(27) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(28) .alarm
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus client channel 3 0-3:24.1.0.255 (@1618)
(29) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(30) .mbus_port_reference
INAPPLICABLE
    Object is not required according to OM and/or extensions
(31) .capture_definition
INAPPLICABLE
    Object is not required according to OM and/or extensions
(32) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(33) .primary_address
INAPPLICABLE
    Object is not required according to OM and/or extensions
(34) .identification_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(35) .manufacturer_id
INAPPLICABLE
    Object is not required according to OM and/or extensions
(36) .version
INAPPLICABLE
    Object is not required according to OM and/or extensions
(37) .device_type
INAPPLICABLE
    Object is not required according to OM and/or extensions

```

```

(38) .access_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(39) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(40) .alarm
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus client channel 4 0-4:24.1.0.255 (@1640)
(41) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(42) .mbus_port_reference
INAPPLICABLE
    Object is not required according to OM and/or extensions
(43) .capture_definition
INAPPLICABLE
    Object is not required according to OM and/or extensions
(44) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(45) .primary_address
INAPPLICABLE
    Object is not required according to OM and/or extensions
(46) .identification_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(47) .manufacturer_id
INAPPLICABLE
    Object is not required according to OM and/or extensions
(48) .version
INAPPLICABLE
    Object is not required according to OM and/or extensions
(49) .device_type
INAPPLICABLE
    Object is not required according to OM and/or extensions
(50) .access_number
INAPPLICABLE
    Object is not required according to OM and/or extensions
(51) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(52) .alarm
INAPPLICABLE
    Object is not required according to OM and/or extensions

```

```

*****
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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(3) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(4) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(5) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 1, instance 2 0-1:24.2.2.255 (@1670)
(6) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions

```

```

(7) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(8) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(9) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 2, instance 1 0-2:24.2.1.255 (@1694)
(11) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(12) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(13) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(14) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(15) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 2, instance 2 0-2:24.2.2.255 (@1702)
(16) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(17) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(18) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(19) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(20) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 3, instance 1 0-3:24.2.1.255 (@1726)
(21) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(22) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(23) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(24) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(25) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 3, instance 2 0-3:24.2.2.255 (@1734)
(26) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(27) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(28) .scaler_unit
INAPPLICABLE

```



```

    Object is not required according to OM and/or extensions
(29) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(30) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 4, instance 1 0-4:24.2.1.255 (@1758)
(31) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(32) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(33) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(34) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(35) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Value channel 4, instance 2 0-4:24.2.2.255 (@1766)
(36) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(37) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions
(38) .scaler_unit
INAPPLICABLE
    Object is not required according to OM and/or extensions
(39) .status
INAPPLICABLE
    Object is not required according to OM and/or extensions
(40) .capture_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

*****
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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 1 channel 2 0-2:96.1.0.255 (@1794)
(3) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(4) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 1 channel 3 0-3:96.1.0.255 (@1798)
(5) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(6) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 1 channel 4 0-4:96.1.0.255 (@1802)
(7) .logical_name
INAPPLICABLE

```

```

    Object is not required according to OM and/or extensions
(8) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 2 channel 1 0-1:96.1.1.255 (@1806)
(9) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 2 channel 2 0-2:96.1.1.255 (@1810)
(11) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(12) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 2 channel 3 0-3:96.1.1.255 (@1814)
(13) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(14) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Device ID 2 channel 4 0-4:96.1.1.255 (@1818)
(15) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(16) .value
INAPPLICABLE
    Object is not required according to OM and/or extensions

*****
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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(3) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(4) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(5) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(6) .sort_object
INAPPLICABLE
    Object is not required according to OM and/or extensions
(7) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(8) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Load profile for channel 2 0-2:24.3.0.255 (@1849)
(9) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .buffer
INAPPLICABLE

```

```
Object is not required according to OM and/or extensions
(11) .capture_objects
INAPPLICABLE
Object is not required according to OM and/or extensions
(12) .capture_period
INAPPLICABLE
Object is not required according to OM and/or extensions
(13) .sort_method
INAPPLICABLE
Object is not required according to OM and/or extensions
(14) .sort_object
INAPPLICABLE
Object is not required according to OM and/or extensions
(15) .entries_in_use
INAPPLICABLE
Object is not required according to OM and/or extensions
(16) .profile_entries
INAPPLICABLE
Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Load profile for channel 3 0-3:24.3.0.255 (@1860)
(17) .logical_name
INAPPLICABLE
Object is not required according to OM and/or extensions
(18) .buffer
INAPPLICABLE
Object is not required according to OM and/or extensions
(19) .capture_objects
INAPPLICABLE
Object is not required according to OM and/or extensions
(20) .capture_period
INAPPLICABLE
Object is not required according to OM and/or extensions
(21) .sort_method
INAPPLICABLE
Object is not required according to OM and/or extensions
(22) .sort_object
INAPPLICABLE
Object is not required according to OM and/or extensions
(23) .entries_in_use
INAPPLICABLE
Object is not required according to OM and/or extensions
(24) .profile_entries
INAPPLICABLE
Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Load profile for channel 4 0-4:24.3.0.255 (@1871)
(25) .logical_name
INAPPLICABLE
Object is not required according to OM and/or extensions
(26) .buffer
INAPPLICABLE
Object is not required according to OM and/or extensions
(27) .capture_objects
INAPPLICABLE
Object is not required according to OM and/or extensions
(28) .capture_period
INAPPLICABLE
Object is not required according to OM and/or extensions
(29) .sort_method
INAPPLICABLE
Object is not required according to OM and/or extensions
(30) .sort_object
INAPPLICABLE
Object is not required according to OM and/or extensions
(31) .entries_in_use
INAPPLICABLE
Object is not required according to OM and/or extensions
(32) .profile_entries
INAPPLICABLE
Object is not required according to OM and/or extensions
```

```

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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(3) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(4) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(5) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(6) .sort_object
INAPPLICABLE
    Object is not required according to OM and/or extensions
(7) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(8) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Control log object 2 0-2:24.5.0.255 (@1952)
(9) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(11) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(12) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(13) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(14) .sort_object
INAPPLICABLE
    Object is not required according to OM and/or extensions
(15) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(16) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Control log object 3 0-3:24.5.0.255 (@1963)
(17) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(18) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(19) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(20) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(21) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(22) .sort_object
INAPPLICABLE

```

```

    Object is not required according to OM and/or extensions
(23) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(24) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Control log object 4 0-4:24.5.0.255 (@1974)
(25) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(26) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(27) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(28) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(29) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(30) .sort_object
INAPPLICABLE
    Object is not required according to OM and/or extensions
(31) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(32) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Event Log 0-0:99.98.3.255 (@1989)
(33) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(34) .buffer
INAPPLICABLE
    Object is not required according to OM and/or extensions
(35) .capture_objects
INAPPLICABLE
    Object is not required according to OM and/or extensions
(36) .capture_period
INAPPLICABLE
    Object is not required according to OM and/or extensions
(37) .sort_method
INAPPLICABLE
    Object is not required according to OM and/or extensions
(38) .sort_object
INAPPLICABLE
    Object is not required according to OM and/or extensions
(39) .entries_in_use
INAPPLICABLE
    Object is not required according to OM and/or extensions
(40) .profile_entries
INAPPLICABLE
    Object is not required according to OM and/or extensions

*****
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
INAPPLICABLE
    Object is not required according to OM and/or extensions
(2) .output_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(3) .control_state
INAPPLICABLE

```

```

    Object is not required according to OM and/or extensions
(4) .control_mode
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Disconnect control object 2 0-2:24.4.0.255 (@1890)
(5) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(6) .output_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(7) .control_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(8) .control_mode
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Disconnect control object 3 0-3:24.4.0.255 (@1898)
(9) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(10) .output_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(11) .control_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(12) .control_mode
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Master Disconnect control object 4 0-4:24.4.0.255 (@1906)
(13) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(14) .output_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(15) .control_state
INAPPLICABLE
    Object is not required according to OM and/or extensions
(16) .control_mode
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Disconnect control scheduler 0-1:15.0.1.255 (@1914)
(17) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(18) .executed_script
INAPPLICABLE
    Object is not required according to OM and/or extensions
(19) .type
INAPPLICABLE
    Object is not required according to OM and/or extensions
(20) .execution_time
INAPPLICABLE
    Object is not required according to OM and/or extensions

Mngmt Get M-Bus Disconnect script table 0-1:10.0.106.255 (@1920)
(21) .logical_name
INAPPLICABLE
    Object is not required according to OM and/or extensions
(22) .scripts
INAPPLICABLE
    Object is not required according to OM and/or extensions

```

```

*****
Test Case 18 : FIT Push, 3 item(s)
*****

```

(1) Push on installation

PASSED

```

(2) Push on alarm PASSED
(3) Push on power down
INAPPLICABLE
    Push setup on power down not available

*****
Test Case 19 : FIT Miscellaneous, 4 item(s)
*****
(1) Disconnecter Script Table
INAPPLICABLE
    Extension D not available
(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 LGZ ZA E460 MCA110CRG3D1.200S S3 *
//* *
//* CNF #6 *
//* 2024-08-27 *
//* *
//*****

// Conformance Test Information (CTI) Template
// 1.6

// The CTI has a specified syntax but it's format is free

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

// Mandatory 'DeviceUnderTest' structure
// *****
DeviceUnderTest = {
    Type = '\Landis+Gyr ZA E460 MCA110CRG3D1.200S S3' //Releas V75.02.26.05.26

    // IDISDeviceType is 100 or 101, it is part of the DUT system title
    //IDISDeviceType = 100 //mono
    IDISDeviceType = 102 //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_L, Extension_M //[Extension_L] //

    // The serial number of the DUT is part of its system title.
    SerialNr = 61159892 //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 = IPv6 // 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 = G3 // 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 = FALSE // true or false

EUI64Address = "98B177FFFF2D611D"
//EUI64Address = "AB573A55834F"
}

// Optional ''TestOptions''
TestOptions = {
  DUTTelNr = '\+41419536544'
  DUTIPAddress = '\10.0.0.0'
}

// 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)
+ '1-0:9.8.0.255|3,' // Apparent energy import (+VA) (QI+QIV) (@406)
+ '1-0:10.8.0.255|3,' // Apparent energy export (-VA) (QII+QIII) (@412)
+ '1-1:0.2.0.255|1,' //Active firmware identifier 1 (@420)
+ '1-0:5.8.1.255|3,' // Reactive energy (QI) rate 1 (@515)
+ '1-0:5.8.2.255|3,' // Reactive energy (QI) rate 2 (@521)
+ '1-0:5.8.3.255|3,' // Reactive energy (QI) rate 3 (@527)
+ '1-0:5.8.4.255|3,' // Reactive energy (QI) rate 4 (@533)
+ '1-0:6.8.1.255|3,' // Reactive energy (QII) rate 1 (@539)
+ '1-0:6.8.2.255|3,' // Reactive energy (QII) rate 2 (@545)
+ '1-0:6.8.3.255|3,' // Reactive energy (QII) rate 3 (@551)
+ '1-0:6.8.4.255|3,' // Reactive energy (QII) rate 4 (@557)
+ '1-0:7.8.1.255|3,' // Reactive energy (QIII) rate 1 (@563)
+ '1-0:7.8.2.255|3,' // Reactive energy (QIII) rate 2 (@569)
+ '1-0:7.8.3.255|3,' // Reactive energy (QIII) rate 3 (@575)
+ '1-0:7.8.4.255|3,' // Reactive energy (QIII) rate 4 (@581)
+ '1-0:8.8.1.255|3,' // Reactive energy (QIV) rate 1 (@587)
+ '1-0:8.8.2.255|3,' // Reactive energy (QIV) rate 2 (@593)
+ '1-0:8.8.3.255|3,' // Reactive energy (QIV) rate 3 (@599)
+ '1-0:8.8.4.255|3,' // Reactive energy (QIV) rate 4 (@605)
+ '1-0:9.4.0.255|5,' // Demand Register 5 - Apparent energy import (+VA) (@736)
+ '1-0:14.7.0.255|3,' // Instantaneous net frequency; any phase (@1359)
+ '1-0:10.4.0.255|5,' // Demand Register 6 - Apparent energy export (-VA) (@749)
+ '1-0:9.7.0.255|3,' // Instantaneous apparent import power (+VA) (@1395)
+ '1-0:16.24.0.255|5,' // Average Net Power (|+A|-|-A|) (@1420)
+ '1-0:13.7.0.255|3,' // Instantaneous Power factor (+A/+VA) (@1446)
+ '1-0:13.5.0.255|4,' // Last Average Power factor (+A/+VA) (@1452)
+ '1-0:13.3.0.255|4,' // Minimum Power factor (+A/+VA) (@1460)
+ '1-0:0.8.2.255|3,' // Measurement Period 3 for Instantaneous values (@1468)

InstanceExtraInfo = {
  // Tariffication script table (@129)
  LogicalName = '0-0:40.0.0.255'
  ClassId = 15
  version = 2
}

InstanceExtraInfo = {
  // Tariffication script table (@129)
  LogicalName = '0-0:10.0.100.255'
  ClassId = 9
  MethodExtraInfo = {
    // execute
    MethodId = 1
    AccessRights = [ACTION]
  }
}

InstanceExtraInfo = {
  // Disconnecter Control Log (@181)
  LogicalName = '0-0:99.98.2.255'
  ClassId = 7

```



```

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

InstanceExtraInfo = {
    // Load Mgmt - Relay control 1 (@197)
    LogicalName = '0-1:96.3.10.255'
    ClassId = 70
    AttributeExtraInfo = {
        // control_mode
        AttributeId = 4
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Limiter (@213)
    LogicalName = '0-0:17.0.0.255'
    ClassId = 71
    AttributeExtraInfo = {
        // actions
        AttributeId = 11
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Standard Event Log (@261)
    LogicalName = '0-0:99.98.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Fraud Detection Log (@276)
    LogicalName = '0-0:99.98.1.255'
    ClassId = 7
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Power Failure Event Log (@1234)
    LogicalName = '1-0:99.97.0.255'
    ClassId = 7
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Power Quality Log (@1249)
    LogicalName = '0-0:99.98.4.255'
    ClassId = 7
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 3
        AccessRights = [GET,SET]
    }
}

```

```

InstanceExtraInfo = {
  // Communication Log (@331)
  LogicalName = '0-0:99.98.5.255'
  ClassId = 7
  AttributeExtraInfo = {
    // capture_objects
    AttributeId = 3
    AccessRights = [GET,SET]
  }
}

InstanceExtraInfo = {
  // Set value for Consumer Message Text
  LogicalName = '0-0:96.13.0.255'
  ClassId = 1
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data><OctetString Value="3132333435363738" /></Data>'
  }
}

InstanceExtraInfo = {
  // Set value for Error register value
  LogicalName = '0-0:97.97.0.255'
  ClassId = 1
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data><DoubleLongUnsigned Value="00000000" /></Data>'
  }
}

InstanceExtraInfo = {
  // Set value for Autoconnect (@2175)
  LogicalName = '0-0:2.1.0.255'
  ClassId = 29
  AttributeExtraInfo = {
    // destination_list
    AttributeId = 6
    AccessRights = [GET,SET]
  }
}

(*
InstanceExtraInfo = {
  // Set clock to 20/08/2024 08:00:00
  LogicalName = '0-0:1.0.0.255'
  ClassId = 8
  // Time_data
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data><OctetString Value="07E80814FF08001EFF8000FF" /></Data>'
  }
}
*)

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

InstanceExtraInfo = {
  // Push action scheduler - Interval_2
  LogicalName = '0-2:15.0.4.255'
  ClassId = 22
  AttributeExtraInfo = {
    // capture_objects
    AttributeId = 2

```

```

        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Push action scheduler - Interval_3
    LogicalName = '0-3:15.0.4.255'
    ClassId = 22
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 2
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Push action scheduler - Interval_3
    LogicalName = '0-4:15.0.4.255'
    ClassId = 22
    AttributeExtraInfo = {
        // capture_objects
        AttributeId = 2
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {
    // Image transfer
    LogicalName = '0-0:44.0.0.255'
    ClassId = 18
    AttributeExtraInfo = {
        // image_block_size
        AttributeId = 2
        AccessRights = [GET,SET]
    }
}

InstanceExtraInfo = {                                     //ScriptTable_Push attribute 2 security group has
changed.
    // Image transfer
    LogicalName = '0-0:10.0.108.255'
    ClassId = 9
    AttributeExtraInfo = {
        //scripts
        AttributeId = 2
        AccessRights = [GET]
    }
}

InstanceExtraInfo = {
    // Set value for execution_time for Image transfer activation scheduler
    LogicalName = '0-0:15.0.2.255'
    ClassId = 22
    AttributeExtraInfo = {
        // value
        AttributeId = 4
        SetData = '\<Data>'
        +' <Array Qty="01" >'
        +' <Structure Qty="02" >'
        +' <OctetString Value="FFFFFFFF" />'
        +' <OctetString Value="FFFFFFFF" />'
        +' </Structure>'
        +' </Array>'
        +' </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="112233445566778899AABBCCDDEEFF" />'
+' </Structure>'
+' </Array>'
+' </Data>'
}
}

InstanceExtraInfo = {
  LogicalName = '0-0:1.0.0.255'
  ClassId = 8
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data><OctetString Value="07E8081DFFF10000FF8000FF" /></Data>' // yyyy mm
dd dow hh mm ss
  }
}

InstanceExtraInfo = {
  // Set special days to 30 entries
  LogicalName = '0-0:11.0.0.255'
  ClassId = 11
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data>'
+' <Array Qty="1E" >'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="001E" />'
+' <OctetString Value="FFFF0101FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="001D" />'
+' <OctetString Value="FFFF0102FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="001C" />'
+' <OctetString Value="FFFF0103FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="001B" />'
+' <OctetString Value="FFFF0104FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="001A" />'
+' <OctetString Value="FFFF0105FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="0019" />'
+' <OctetString Value="FFFF0106FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="0018" />'
+' <OctetString Value="FFFF0107FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="0017" />'
+' <OctetString Value="FFFF0108FF" />'
+' <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+' <LongUnsigned Value="0016" />'
+' <OctetString Value="FFFF0109FF" />'

```

```

+'          <Unsigned Value="02" />'
+'        </Structure>'
+'      <Structure Qty="03" >'
+'        <LongUnsigned Value="0015" />'
+'        <OctetString Value="FFFF010AFF" />'
+'        <Unsigned Value="02" />'
+'      </Structure>'
+'    <Structure Qty="03" >'
+'      <LongUnsigned Value="0014" />'
+'      <OctetString Value="FFFF0201FF" />'
+'      <Unsigned Value="02" />'
+'    </Structure>'
+'  <Structure Qty="03" >'
+'    <LongUnsigned Value="0013" />'
+'    <OctetString Value="FFFF0202FF" />'
+'    <Unsigned Value="02" />'
+'  </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="0012" />'
+'   <OctetString Value="FFFF0203FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="0011" />'
+'   <OctetString Value="FFFF0204FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="0010" />'
+'   <OctetString Value="FFFF0205FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000F" />'
+'   <OctetString Value="FFFF0206FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000E" />'
+'   <OctetString Value="FFFF0207FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000D" />'
+'   <OctetString Value="FFFF0208FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000C" />'
+'   <OctetString Value="FFFF0209FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000B" />'
+'   <OctetString Value="FFFF020AFF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="000A" />'
+'   <OctetString Value="FFFF0301FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="0009" />'
+'   <OctetString Value="FFFF0302FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'
+'   <LongUnsigned Value="0008" />'
+'   <OctetString Value="FFFF0303FF" />'
+'   <Unsigned Value="02" />'
+' </Structure>'
+' <Structure Qty="03" >'

```



```

// Image identifier as passed to the image_transfer_initiate method
// MFW...
ImageIdentifier = '4D46575F6C6567616C00'
// 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 = '\\V75.02.26.05.26_FixFlex_v1.img' //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 = 300000//in miliseconds
}

// Push timeout is the time (in ms) awaited by the iCTT for the DUT to send a
DataNotification
PushTimeout = 60000

// (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 = 1000

// (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 inequal 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 = 2
    RepetitionDelay = 30
}

// (optional) Delay (in ms) to wait before performing a wake-up, default = 10000
//WakeUpDelay = 30000
}

// 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 = 3 //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 = 1224
        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_WITH_CIPHERING //LONG_NAMES_WITH_CIPHERING, LONG_NAMES
        MechanismName = HIGH_LEVEL_SECURITY_GMAC //LOWEST_LEVEL_SECURITY, LOW_LEVEL_SECURITY,
HIGH_LEVEL_SECURITY_GMAC
        Policy = AUTHENTICATION_AND_ENCRYPTION
        Password = '\12345678'
    }
    PreEstablished = {
        Policy = NO_SECURITY // AUTHENTICATION_AND_ENCRYPTION
        ServerMaxReceivePduSize = 1224
        CIPHERINGStyle = GENERAL
    }
}

// Parameters of the 'Local' HDLC Profile
HDLCProfile = {
    PhysicalLayer = {

```



```

OpeningMode = DIRECT_HDLC
  HdLcBaud = 9600
}
DataLinkLayer = {
  InactivityTimeout = 120000
  InterFrameTimeout = 5000
  ResponseTimeout = 20000
  DISCToNDMTimeout = 2000
  AddressingSchemes = [ONE_BYTE_ADDRESSING]
  LastRecToNextSendDelay = 100
}
// (Optional) Delay (ms) after sending an UI frame, default 0
// UIFrameDelay = 2000
// (optional) UI frames info field length, default 128
// UIFrameLength = 126

}
G3PLCProfile = {
  ResponseTimeout = 50000
  ConnectTimeout = 10000
  UDPPort = 61616
  FrequencyBand = CENELEC_A
  PSK = "AB10341145111BC3C12DE8FF11142204" //AB10341145111BC3C12DE8FF11142204
}

// END CTI_Template

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

TestMode:           G3-PLC
Test Plan Signature: BFC18D5882976F2087BC007B67CDC246
Object Model:       IDIS-S02-002 - object model Pack2 Ed2.0 - V2.29 (20200831)-FIT MBUS
Tests G350 (CorrectedAndValve status).xlsx
DUT system title:   4C475A6603A539D4
Run number:         2397

```