

Final Interoperability Test Report

FIT #: **28**
Date: 17.05.2018
Location: DNV-GL,Arnhem,
Netherlands
Page 1 of 24

APPLICANT

Company: Jiangsu Linyang Energy Co., Ltd

Address: No.666 Linyang Road, Qidong, China

DEVICE		
Device type	SM120	
Type indication on MID certificate	MID Certificate No.	
SM120	SGS 0120/SGS0364	
IDIS Specification reference	DNV-GL IDIS Certification run No	Digital signature of the test report.
Package 2 ed. 2.0	281	03A21FD2B32F9413DA7372565C7B368A
First certification	IDIS Label	Modular device
☒	0039	☐
General information about the device		

FIRMWARE VERSIONS TESTED				Final Interoperability Test No. 28
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	Verdict
1	SM11_AMI_BD_H5027_VA111_20180322			Passed

Honeywell

Iskraemeco d.d.

Ittron

Landis+Gyr AG

Fit #28

Device:SM120

DNV-GL,Arnhem, Netherlands, 17.05.2018

Page 2 of 24

FIRMWARE VERSIONS HISTORY				Final Integration Test	
Firmware No.	Firmware ID1	Firmware ID2	Firmware ID3	No.	Verdict
1	SM11_AMI_BD_H5027_VA111_20180322			28	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	Not applicable	
M-Bus Results	Not applicable	
M-Bus Devices IDs	Not applicable	
M-Bus profiles	Not applicable	
M-Bus Load profiles	Not applicable	
M-Bus control logs	Not applicable	
M-Bus Disconnect log	Not applicable	
FIT Push	Passed	
FIT Miscellaneous	Passed	
Optical Port Connectivity	Passed	
Consumer Information Interface	Not applicable	
FIT Conformance Test Report		
<pre> ***** iDis Conformance test report 17-MAY-2018 14:06:51 iCTT2 Package 2, Edition 2.0, Revision 1 (132) Licensed to: KEMA-iDis Cert. Tester: Daniele Colangelo ***** ***** * Identification * ***** Manufacturer = { Name = '\Jiangsu Linyang Energy Co.,Ltd' ThreeLettersId = '\LYE' } DeviceUnderTest = { Type = '\SM120' iDisDeviceType = 102 iDisFunctionType = [EXTENSION_D] SerialNr = 12345678 IPVersion = IPV6 DataLinkLayer = G3 ConsumerInformationPush = FALSE EUI64Address = '0080E1FFFE4C7FF3' } Active firmware identifier (1-0:0.2.0.255) = \SM11_AMI_BD_H5027_VA111_20180322 ***** * Summary * ***** PASSED 62 FAILED 0 DISABLED 0 INAPPLICABLE 211 INCONCLUSIVE 0 FATAL 0 TOTAL 273 </pre>		

```

*****
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="\12345678" />
    </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="\05" />
    </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="\DEVID3" />
    </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="\DEVID4" />
    </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="\DEVID5" />
    </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="\LYE1020112345678" />
    </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="\LYE1020112345678" />
    </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="\SM11_AMI_BD_H5027_VA111_20180322" />
    </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="3EFA" />
    </Data>

Mngmt Get Active firmware identifier 1 1-1:0.2.0.255 (@420)
(5) .logical_name
INAPPLICABLE
Optional object is not implemented
(6) .value
INAPPLICABLE
Optional object is not implemented

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
    <Data>
    <OctetString Value="07E20511FF101E00FF8000FF" />
    </Data>
    PASSED

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

Mngmt Get Clock 0-0:1.0.0.255 (@75)
(1) .time
    <Data>
    <OctetString Value="07E2051104101E0000FF8880" />
    </Data>
    PASSED

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

Pre Set Special Days Table 0-0:11.0.0.255 (@125)
(1) .entries
    <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>
    </Array>
    PASSED

```

```

</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>

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

Mngmt Get Special Days Table 0-0:11.0.0.255 (@125)
(1) .entries
  <Data>
    <Array Qty="0001" >
      <Structure Qty="0003" >
        <LongUnsigned Value="0001" />
        <OctetString Value="08330616FF" />
        <Unsigned Value="01" />
      </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
  <Data>
    <OctetString Value="0000636202FF" />

```

PASSED

PASSED

</Data>		
(2) .buffer	Earliest date: 17-APR-2018 01:00:17, latest date: 21-APR-2018 15:42:47 Middle date: 21-APR-2018 01:00:04	PASSED
(3) .entries_in_use	<Data> <DoubleLongUnsigned Value="00000008" /> </Data>	PASSED
(4) .profile_entries	<Data> <DoubleLongUnsigned Value="00000064" /> </Data>	PASSED
Mngmt Get Standard Event Log 0-0:99.98.0.255 (@301)		
(5) .logical_name	<Data> <OctetString Value="0000636200FF" /> </Data>	PASSED
(6) .buffer	Earliest date: 16-APR-2018 23:46:35, latest date: 17-MAY-2018 16:30:01 Middle date: 21-APR-2018 15:43:11	PASSED
(7) .entries_in_use	<Data> <DoubleLongUnsigned Value="00000034" /> </Data>	PASSED
(8) .profile_entries	<Data> <DoubleLongUnsigned Value="00000064" /> </Data>	PASSED
Mngmt Get Fraud Detection Log 0-0:99.98.1.255 (@316)		
(9) .logical_name	<Data> <OctetString Value="0000636201FF" /> </Data>	PASSED
(10) .buffer	Earliest date: 17-APR-2018 01:00:49, latest date: 21-APR-2018 01:00:21 Middle date: 19-APR-2018 00:59:57	PASSED
(11) .entries_in_use	<Data> <DoubleLongUnsigned Value="0000000A" /> </Data>	PASSED
(12) .profile_entries	<Data> <DoubleLongUnsigned Value="00000064" /> </Data>	PASSED
Mngmt Get Communication Log 0-0:99.98.5.255 (@331)		
(13) .logical_name	<Data> <OctetString Value="0000636205FF" /> </Data>	PASSED
(14) .buffer	Earliest date: 16-APR-2018 23:46:51, latest date: 21-APR-2018 15:47:54 Middle date: 21-APR-2018 01:15:49	PASSED
(15) .entries_in_use	<Data> <DoubleLongUnsigned Value="00000023" /> </Data>	PASSED
(16) .profile_entries	<Data> <DoubleLongUnsigned Value="00000064" /> </Data>	PASSED
Mngmt Get Power Quality Log 0-0:99.98.4.255 (@1340)		
(17) .logical_name	<Data> <OctetString Value="0000636204FF" /> </Data>	PASSED
(18) .buffer	Earliest date: 16-APR-2018 23:47:23, latest date: 21-APR-2018 01:15:44 Middle date: 20-APR-2018 01:01:22	PASSED
(19) .entries_in_use		PASSED

```

    <Data>
      <DoubleLongUnsigned Value="0000000F" />
    </Data>
  (20) .profile_entries                                     PASSED
    <Data>
      <DoubleLongUnsigned Value="000000C8" />
    </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: 17-APR-2018 01:00:00, latest date: 01-MAY-2018 00:00:00
    Middle date: 20-APR-2018 00:59:00

  (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>
      <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="00000007" />
    </Data>
  (8) .profile_entries                                     PASSED
    <Data>
      <DoubleLongUnsigned Value="0000000D" />
    </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. 6 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
(2) Push on alarm
(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
(2) Load profile with period 1 DST ambiguity
(3) Load profile power down withing one period
(4) Load profile power down over two periods

```

PASSED

PASSED

PASSED

PASSED

PASSED

PASSED

```

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

//*****
/* CTI LINYANG GPRS */
//*****
// Conformance Test Information (CTI) Template
// 2.2

// Mandatory 'Manufacturer' structure
// *****

Manufacturer = {
    Name = '\Jiangsu Linyang Energy Co.,Ltd'
    ThreeLettersId = '\LYE'
}

DeviceUnderTest = {
    Type = '\SM120'
    IDISDeviceType = 102
    IDISFunctionType = [Extension_D]
    SerialNr = 12345678
    IPVersion = IPv6
    DataLinkLayer = G3
    ConsumerInformationPush = FALSE
    // EUI64Address (mandatory for G3-PLC profile)
    EUI64Address = "0080E1FFFE4C7FF3"
}

TestOptions = {
    DUTTelNr = '\+31658021896'
    DUTIPAddress = "\5.172.221.18"
}

// Mandatory 'ObjectMode' structure
// *****
// It defines the variant of the object model that the iCTT uses for testing.

ObjectModel = {
    OptionalObjects = '\

    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 = {
        // 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="000102030405060708090A0B0C0D0E0F" />'
            + '        </Structure>'
            + '    </Array>'
            + '    </Data>'
        }
    }
}

```

```

InstanceExtraInfo = {
  // Set clock
  LogicalName = '0-0:1.0.0.255'
  ClassId = 8
  AttributeExtraInfo = {
    AttributeId = 2
    SetData = '\<Data><OctetString Value="07E20511FF101E00FF8000FF" /></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>'
+'
+  }
+}

}

TestParameters = {
  ConnectDisconnectDelay = 6000
  //ClientSystemTitle = '4C475A1169000000'
  ClientSystemTitle = '58585A0102030405'

  ImageTransfer = {
    ImageIdentifier = '42445f48353032335f56303030315f32303138303132332e62696e41414137'
    ImageFileName = '\BD_H5023_V0001_20180123.binAAA7' //the image file to be located in
the CTI is!
    Timeout = 300000 //in milliseconds
  }

  PushTimeout = 180000
  MinInterWPDUFramesDelay = 3000
  ProfilePeriodsQty = 10
  CaptureDelay = 15000
  ClipCallDuration = 15000

  AutoConnect = {
    Repetitions = 2
    RepetitionDelay = 30
  }

  PushSetup = {
    NumberOfRetries = 4
    RepetitionDelay = 30
  }

  WakeUpDelay = 30000
  DisconnectToSendsMSDelay = 60000
  DataNotificationToDisconnectDelay = 4000
}

RemoteSecurityElements = {

  Public = {
    ContextName = LONG_NAMES
    MechanismName = LOWEST_LEVEL_SECURITY
    Policy = NO_SECURITY
  }

  Management = {
    ContextName = LONG_NAMES_WITH_CIPHERING

```

```

    MechanismName = HIGH_LEVEL_SECURITY_GMAC
    Policy = AUTHENTICATION_AND_ENCRYPTION
    Password = '\12345678'
  }

  PreEstablished = {
    Policy = AUTHENTICATION_AND_ENCRYPTION//NO_SECURITY //AUTHENTICATION_AND_ENCRYPTION
    ServerMaxReceivePduSize = 300
    CipheringStyle = GENERAL
  }
}

SMSSecurityElements = {
  PreEstablished = {
    Policy = AUTHENTICATION_AND_ENCRYPTION//NO_SECURITY //AUTHENTICATION_AND_ENCRYPTION
    ServerMaxReceivePDUSize = 138
    CipheringStyle = GENERAL
  }
}

LocalSecurityElements = {
  Public = {
    ContextName = LONG_NAMES
    MechanismName = LOWEST_LEVEL_SECURITY
    Policy = NO_SECURITY
  }

  Management = {
    ContextName = LONG_NAMES
    MechanismName = LOW_LEVEL_SECURITY
    Policy = NO_SECURITY
    Password = '\12345678'
  }

  PreEstablished = {
    Policy = NO_SECURITY
    ServerMaxReceivePduSize = 0x05DC
    CipheringStyle = service
  }
}

// Parameters of the 'Local' HDLC Profile
HDLCPProfile = {

  PhysicalLayer = {
    OpeningMode = DIRECT_HDLC
    HdlcBaud = 9600
  }

  DataLinkLayer = {
    InactivityTimeout = 180000
    InterFrameTimeout = 25
    ResponseTimeout = 10000
    DISCToNDMTIMEOUT = 10000
    AddressingSchemes = [ONE_BYTE_ADDRESSING]
  }

  // (Optional) Delay (ms) after sending an UI frame, default 0
  UIFrameDelay = 200
  // (optional) UI frames info field length, default 128
  UIFrameLength = 126
}

TCPPProfile = {
  ServerTCPPort = 4059
  ResponseTimeout = 120000
  ConnectTimeout = 120000
  DisconnectToConnectDelay = 60000
}

```

```
// Mandatory parameters of the ''Remote'' G3-PLC profile
G3PLCProfile = {
  ResponseTimeout = 20000
  UDPPort = 61616
  PSK = "AB10341145111BC3C12DE8FF11142204"
}

// END CTI_Template

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

TestMode:          G3-PLC
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
DUT system title:  4C59456610BC614E
Run number:        104
```