DLMS User Association

device
language
message
specification

Bahnhofstrasse 28   Tel. +36 28 514 065
CH-6302 Zug
Switzerland   dlms@dlms.com

Certification No. 2239

This is to certify that the metering equipment identified as:

Type: DTZ1513(MCT405T6A)   Active firmware(s): Id=BDA1-CD-191009 S=44AD8973
                                        Id=7F-EMU-19100902 S=D639A178
                                        Id=DLMSLIB-V02.07 S=V02.07
Mgmt. SAP = 1 is "49484D3030303037393030343633333338" (IHM0000790046338)
Manufactured by: INHEMETER CO.,LTD.

has successfully passed the DLMS/COSEM Conformance test, under the following conditions:

- CTT version: CTT 3.1 standard edition, 64bits, release 107
- Licensed to: 20120917_Shenzhen_Inhemeter_Shenzhen_China (2012-09-17)
- COSEM object definitions file version: Object_defs_v3.3_released_180601.dat
- Media identifier(s): Abstract, Electricity

Tests	Comm. profile & opening mode	Application contexts	Security features	Date and time	Test Result hash value
Test 1	HDLC, DIRECT_HDLC	LONG_NAMES, LONG_NAMES _WITH_ CIPHERING	GENERAL_GLO_CIPHERING SERVICE_SPECIFIC_GLO_ CIPHERING, SUITE_0 SECURITY_ACTIVATE, KEY_TRANSFER	01-NOV-2019 14:36:29	C2288B5AEDEB380600DDD84545B021D79 620CF14D17F547D4437EAD873BEFAE0
Test 2 IR	HDLC, MODE_E			01-NOV-2019 10:07:42	DCFD87D321A49E492AFA4F9256EBA8E3 B85AA2EEC44ACCA58D3751F11B9656C7
Test 3	TCP			01-NOV-2019 15:45:30	4091F019102B71266D0003561D36DED0F9 A5B1923D02A4B604CE3ADA035B301A

This DTZ1513(MCT405T6A) meter device type has already been certified as Certification no. 1577 tested with CTT 2.7 on 15th October 2015.

The authenticity of the test report(s) has been verified by the DLMS User Association and the metering equipment identified above is listed on its web site at: www.dlms.com.
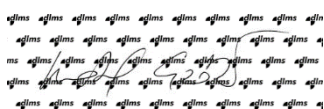
With this, the manufacturer is entitled to display the DLMS/COSEM Compliant mark – shown below – on its product duly identified and on its product literature.
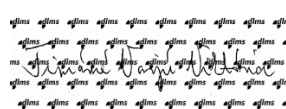
COSEM Compliant

The test reports are filed by the DLMS UA. Copies are available from the manufacturer.

This Certificate is only valid for the functions successfully tested; see the Summary. The test has been executed on one specimen of the product, as identified by the Management Logical Device Name reported. Results may not be applicable for other test specimens.

Date: Zug, the 22nd November 2019

Győző Kmethy
President

Viktória Varjú Timárné
Certification Engineer

The DLMS UA is a not for profit Association in conformance with Art. 60ff of the Swiss Civil Code.
Commercial registration number CHE-440.972.101

Certification No. 2239

Summary of features tested for Test 1

```
This section provides an overview of the features tested, aggregated over all logical devices
and Application Associations in one test session. Full information is available in the Test
Result.
```

```
******************
* Identification *
******************

Identification = {
  Manufacturer = "\INHEMETER CO.,LTD."
  FLAGid = "\IHM"
  Type = "\DTZ1513(MCT405T6A)"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "\037990046338"
  Comment = "\Smart meter"
}

***********
* Summary *
***********

TYPE    TOTAL   SKIPPED   INAPPLICABLE   INCONCLUSIVE   PASSED   FAILED
----    -----   -------   ------------   ------------   ------   ------
HDLC    36      0         1              0              35       0
APPL    71      0         18             0              53       0
COSEM   11100   0         8              86             11006    0
SYMSEC  78      0         12             0              66       0
PUBSEC          All (No ciphered association with the required properties)
DP      0       0         0              0              0        0
GBT             All (No association with the required properties)


Communication profile:          HDLC

Application context names:       LONG_NAMES,LONG_NAMES_WITH_CIPHERING

Authentication mechanisms:       NO_SECURITY,HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features:         ACTION,GET,MULTIPLE_REFERENCES
                                 SELECTIVE_ACCESS
                                 SERVICE_SPECIFIC_BLOCK_TRANSFER,SET

Security features:               GENERAL_GLO_CIPHERING
                                 SERVICE_SPECIFIC_GLO_CIPHERING,SUITE_0
                                 SECURITY_ACTIVATE,KEY_TRANSFER

Data protection features:        (not collected)

Logical device(s) found:
                                 SAP   =   1    is    "49484D30303030373930303436333338"
(IHM0000790046338)
                                 SAP   =   16   is    "49484D31303030373930303436333338"
(IHM1000790046338)

Active firmware(s):              Id=BDA1-CD-191009 S=44AD8973
                                 Id=7F-EMU-19100902 S=D639A178
                                 Id=DLMSLIB-V02.07 S=V02.07

COSEM classes tested:            1,3,4,5,6,7(1),8,9,11,15(1),17,18,20,21,22
                                 23(1),40,41,42,48,64(1),70,71,111,112,113
                                 115

COSEM classes found but not tested:  (none)
```

Certification No. 2239

Summary of features tested for Test 2

```
This section provides an overview of the features tested, aggregated over all logical devices
and Application Associations in one test session. Full information is available in the Test
Result.
```

```
******************
* Identification *
******************

Identification = {
  Manufacturer = "\INHEMETER CO.,LTD."
  FLAGid = "\IHM"
  Type = "\DTZ1513(MCT405T6A)"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "\037990046338"
  Comment = "\Smart meter"
}

***********
* Summary *
***********

TYPE    TOTAL   SKIPPED   INAPPLICABLE   INCONCLUSIVE   PASSED   FAILED
----    -----   -------   ------------   ------------   ------   ------
HDLC            All(MODE_E)
APPL    71      0         18             0              53       0
COSEM   11100   0         8              86             11006    0
SYMSEC  78      0         12             0              66       0
PUBSEC          All (No ciphered association with the required properties)
DP      0       0         0              0              0        0
GBT             All (No association with the required properties)


Communication profile:            HDLC

Application context names:        LONG_NAMES,LONG_NAMES_WITH_CIPHERING

Authentication mechanisms:        NO_SECURITY,HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features:          ACTION,GET,MULTIPLE_REFERENCES
                                  SELECTIVE_ACCESS
                                  SERVICE_SPECIFIC_BLOCK_TRANSFER,SET

Security features:                GENERAL_GLO_CIPHERING
                                  SERVICE_SPECIFIC_GLO_CIPHERING,SUITE_0
                                  SECURITY_ACTIVATE,KEY_TRANSFER

Data protection features:         (not collected)

Logical device(s) found:
                                  SAP   =   1    is    "49484D30303030373930303436333338"
(IHM0000790046338)
                                  SAP   =   16   is    "49484D31303030373930303436333338"
(IHM1000790046338)

Active firmware(s):               Id=BDA1-CD-191009 S=44AD8973
                                  Id=7F-EMU-19100902 S=D639A178
                                  Id=DLMSLIB-V02.07 S=V02.07

COSEM classes tested:             1,3,4,5,6,7(1),8,9,11,15(1),17,18,20,21,22
                                  23(1),40,41,42,48,64(1),70,71,111,112,113
                                  115

COSEM classes found but not tested: (none)
```

Certification No. 2239

Summary of features tested for Test 3

```
This section provides an overview of the features tested, aggregated over all logical devices
and Application Associations in one test session. Full information is available in the Test
Result.
```

```
******************
* Identification *
******************

Identification = {
  Manufacturer = "\INHEMETER CO.,LTD."
  FLAGid = "\IHM"
  Type = "\DTZ1513(MCT405T6A)"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "\037990046338"
  Comment = "\Smart meter"
}

***********
* Summary *
***********


TYPE    TOTAL   SKIPPED   INAPPLICABLE   INCONCLUSIVE   PASSED   FAILED
----    -----   -------   ------------   ------------   ------   ------
HDLC            All(Communication profile not HDLC)
APPL    71      0         17             0              54       0
COSEM   11091   0         8              86             10997    0
SYMSEC  78      0         12             0              66       0
PUBSEC          All (No ciphered association with the required properties)
DP      0       0         0              0              0        0
GBT             All (No association with the required properties)


Communication profile:          TCP

Application context names:       LONG_NAMES,LONG_NAMES_WITH_CIPHERING

Authentication mechanisms:       NO_SECURITY,HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features:         ACTION,GET,MULTIPLE_REFERENCES,RLRQ_RLRE
                                 SELECTIVE_ACCESS
                                 SERVICE_SPECIFIC_BLOCK_TRANSFER,SET

Security features:               GENERAL_GLO_CIPHERING
                                 SERVICE_SPECIFIC_GLO_CIPHERING,SUITE_0
                                 SECURITY_ACTIVATE,KEY_TRANSFER

Data protection features:        (not collected)

Logical device(s) found:
                                 SAP   =   1   is   "49484D30303030373930303436333338"
(IHM0000790046338)
                                 SAP   =   16   is   "49484D31303030373930303436333338"
(IHM1000790046338)

Active firmware(s):              Id=BDA1-CD-191009 S=44AD8973
                                 Id=7F-EMU-19100902 S=D639A178
                                 Id=DLMSLIB-V02.07 S=V02.07

COSEM classes tested:            1,3,4,5,6,7(1),8,9,11,15(1),17,18,20,21,22
                                 40,41,42,48,64(1),70,71,111,112,113,115

COSEM classes found but not tested:  (none)
```