

DLMS User Association

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Certification No. 2096

This is to certify that the metering equipment identified as:

Type: Landis+Gyr E570 S2 ZxY405CW1Ux_V84.06.06

Mgmt. SAP = 1 is "4C475A31303330373433363439353230" (LGZ1030743649520)

Manufactured by: Landis+Gyr

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

- CTT version: CTT 3.0 standard edition, 64bits (109)
- Licensed to: Landis+Gyr (11.07.2005)
- 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 optical	HDLC, DIRECT_HDLC	LONG_NAMES, LONG_NAMES_ WITH_ CIPHERING	ACTIVATE_SECURITY_ POLICY, KEY_TRANSFER SERVICE_SPECIFIC_ DED_CIPHERING SERVICE_SPECIFIC_ GLO_CIPHERING	08-APR-2019 11:20:33	DEB95F2CE470E1BC0ACF34EE4A6A0B0E 4CB2B11705AF07EE6330306DD2EDF9A9
Test 2 RS485	HDLC, DIRECT_HDLC			08-APR-2019 12:29:14	2C634BB93312FAE1535B12A217C15EFA1 ACFD8F339FEF4D834AB578A17439F06
Test TCP	ТСР			28-MAR-2019 14:26:19	29098DACFAB20C80AFB9A6A03E713FD6 2C47C89F44918AB087A588EE216EA05F
Test 4 optical	HDLC, DIRECT_HDLC	SHORT_NAMES SHORT_NAMES _WITH_ CIPHERING		26-MAR-2019 12:14:49	532626C82A5CBBD6CED433A449065B5C6 53DFDB3E249C24057A2B10E228870E9
Test 5 RS485	HDLC, DIRECT_HDLC			27-MAR-2019 07:30:26	F790A474E6737342645891A4B24D243D599 480543209A61465F3C581E975637F
Test 6 TCP	ТСР			28-MAR-2019 13:13:54	449A4ED1F76518045AD06CB75740CD6236 A489123489A706B4261BB6B4464B14

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.



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 8th April 2019

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Győző Kmethy President

Summary of features tested for Test 1

```
*****
* Identification *
******
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
      TOTAL SKIPPED INAPPLICABLE
TYPE TOTAL
                                     INCONCLUSIVE
                                                   PASSED
                      _____
                                     _____
            0 3
0 16
HDLC 36
APPL 90
                                                   33
                                    0
                                                  74
                                                           0
                     36
12
COSEM 7237
            0
                                                   7054
                                                           0
                                    147
                12
SYMSEC 97 0
                                    0
                                                   85
Communication profile:
                                 HDLC
Application context names:
                                 LONG_NAMES,LONG_NAMES_WITH_CIPHERING
Security mechanisms:
                                  NO SECURITY, LOW LEVEL SECURITY
                                  HIGH LEVEL SECURITY SHA1
                                  HIGH LEVEL SECURITY GMAC
ACSE and xDLMS features:
                                  ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE
                                  SELECTIVE ACCESS
                                  SERVICE SPECIFIC BLOCK TRANSFER, SET
Security features:
                                  ACTIVATE SECURITY POLICY, KEY TRANSFER
                                  SERVICE_SPECIFIC_DED_CIPHERING
                                  SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                  SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
                                  1,3,4,5,6,7(1),8,9,11,12(3),15(2),17,18,20
COSEM classes tested:
                                  21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44
                                  45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```

Summary of features tested for Test 2

```
*****
* Identification *
******
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
      TOTAL SKIPPED INAPPLICABLE
TYPE TOTAL
                                     INCONCLUSIVE
                                                   PASSED
                       _____
                                     _____
HDLC 36
                                                    33
APPL 90
             0
                      16
                                    0
                                                   74
                                                            0
                      36
COSEM 7237
            0
                                                            0
                                                    7054
                                     147
SYMSEC 97 0
                      12
                                     0
                                                    85
Communication profile:
                                  HDLC
Application context names:
                                   LONG NAMES, LONG NAMES WITH CIPHERING
Security mechanisms:
                                   NO SECURITY, LOW LEVEL SECURITY
                                   HIGH LEVEL SECURITY SHA1
                                   HIGH LEVEL SECURITY GMAC
ACSE and xDLMS features:
                                   ACTION, GET, MULTIPLE REFERENCES, RLRQ RLRE
                                   SELECTIVE ACCESS
                                   SERVICE SPECIFIC BLOCK TRANSFER, SET
Security features:
                                   ACTIVATE SECURITY POLICY, KEY TRANSFER
                                   SERVICE_SPECIFIC_DED_CIPHERING
                                   SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                  SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
                                   1, 3, 4, 5, 6, 7(1), 8, 9, 11, 12(3), 15(2), 17, 18, 20
COSEM classes tested:
                                   21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44
                                   45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```

Summary of features tested for Test 3

```
*****
* Identification *
******
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
             SKIPPED INAPPLICABLE INCONCLUSIVE
TYPE TOTAL
                                                     PASSED
HDLC All(Communication profile not HDLC)
APPL 90 0 16 0
                                                     74
                                                              0
COSEM 7273 0
                       12
                                                             0
                                                     7114
                                      147
SYMSEC 97
             0
                      12
                                      0
                                                     85
Communication profile:
                                   TCP
Application context names:
                                   LONG NAMES, LONG NAMES WITH CIPHERING
Security mechanisms:
                                    NO SECURITY, LOW LEVEL SECURITY
                                    HIGH LEVEL SECURITY SHA1
                                    HIGH LEVEL SECURITY GMAC
                                    ACTION, DATA_NOTIFICATION, GET
ACSE and xDLMS features:
                                    MULTIPLE REFERENCES, RLRQ_RLRE
                                    SELECTIVE ACCESS
                                    SERVICE_SPECIFIC_BLOCK_TRANSFER,SET
                                    ACTIVATE SECURITY POLICY
Security features:
                                    GENERAL_GLO_CIPHERING, KEY_TRANSFER
                                    SERVICE SPECIFIC DED CIPHERING
                                    SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                   SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
COSEM classes tested:
                                   1,3,4,5,6,7(1),8,9,11,12(3),15(2),17,18,20
                                    21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44
                                    45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```

Summary of features tested for Test 4

```
*****
* Identification *
*******
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
      TOTAL SKIPPED INAPPLICABLE
TYPE TOTAL
                                     INCONCLUSIVE
                                                   PASSED
                       _____
                                     _____
HDLC 36
APPL 88
                                                   33
            0
                      16
                                    0
                                                   72
                                                            0
COSEM 7205 0
                                                            0
                                    150
                                                   7019
                      36
                 12
SYMSEC 97 0
                                    0
                                                    85
Communication profile:
                                  HDLC
                                   SHORT_NAMES, SHORT_NAMES_WITH_CIPHERING
Application context names:
Security mechanisms:
                                   NO SECURITY, LOW LEVEL SECURITY
                                   HIGH LEVEL SECURITY SHA1
                                   HIGH LEVEL SECURITY GMAC
ACSE and xDLMS features:
                                   MULTIPLE REFERENCES, READ, RLRQ RLRE
                                   SELECTIVE ACCESS
                                   SERVICE SPECIFIC BLOCK TRANSFER, WRITE
Security features:
                                   ACTIVATE SECURITY POLICY, KEY TRANSFER
                                   SERVICE_SPECIFIC_DED_CIPHERING
                                   SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                  SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
                                   1, 3, 4, 5, 6, 7(1), 8, 9, 11, 12(3), 15(2), 17, 18, 20
COSEM classes tested:
                                   21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44
                                   45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```

Summary of features tested for Test 5

```
*****
* Identification *
******
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
      TOTAL SKIPPED INAPPLICABLE
TYPE TOTAL
                                     INCONCLUSIVE
                                                   PASSED
                       _____
                                     _____
HDLC 36
APPL 88
                                                   33
            0
                      16
                                    0
                                                   72
                                                            0
COSEM 7205 0
                                                            0
                                    150
                                                   7019
                      36
                 12
SYMSEC 97 0
                                    0
                                                    85
Communication profile:
                                  HDLC
                                   SHORT_NAMES, SHORT_NAMES_WITH_CIPHERING
Application context names:
Security mechanisms:
                                   NO SECURITY, LOW LEVEL SECURITY
                                   HIGH LEVEL SECURITY SHA1
                                   HIGH LEVEL SECURITY GMAC
ACSE and xDLMS features:
                                   MULTIPLE REFERENCES, READ, RLRQ RLRE
                                   SELECTIVE ACCESS
                                   SERVICE SPECIFIC BLOCK TRANSFER, WRITE
Security features:
                                   ACTIVATE SECURITY POLICY, KEY TRANSFER
                                   SERVICE_SPECIFIC_DED_CIPHERING
                                   SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                  SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
                                   1, 3, 4, 5, 6, 7(1), 8, 9, 11, 12(3), 15(2), 17, 18, 20
COSEM classes tested:
                                   21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44
                                   45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```

Summary of features tested for Test 6

```
*****
* Identification *
*****
Identification = {
 Manufacturer = "\Landis+Gyr"
 FLAGid = "\LGZ"
 Type = "\Landis+Gyr E570 S2 ZxY405CW1Ux V84.06.06"
 IUTIsModule = FALSE
 SerialNr = "\43649520"
 Comment = "\GRD Devices"
 Comment = "\Test and Validation, Zug"
}
*****
* Summary *
*****
             SKIPPED INAPPLICABLE INCONCLUSIVE
TYPE TOTAL
                                                     PASSED
HDLC All(Communication profile not HDLC)
APPL 88 0 16 0
                                                     72
                                                              0
                       12
COSEM 7253 0
                                                     7094
                                                             0
                                      147
                  12
SYMSEC 97
             0
                                     0
                                                     85
Communication profile:
                                   TCP
                                   SHORT NAMES, SHORT NAMES WITH CIPHERING
Application context names:
Security mechanisms:
                                    NO SECURITY, LOW LEVEL SECURITY
                                    HIGH LEVEL SECURITY SHA1
                                    HIGH LEVEL SECURITY GMAC
ACSE and xDLMS features:
                                    DATA NOTIFICATION, MULTIPLE REFERENCES, READ
                                    RLRQ RLRE, SELECTIVE ACCESS
                                    SERVICE SPECIFIC BLOCK TRANSFER, WRITE
Security features:
                                    ACTIVATE SECURITY POLICY
                                    GENERAL_GLO_CIPHERING, KEY TRANSFER
                                    SERVICE_SPECIFIC_DED_CIPHERING
                                    SERVICE_SPECIFIC_GLO_CIPHERING
Logical device(s) found:
                                   SAP = 1 is "4C475A31303330373433363439353230"
(LGZ1030743649520)
COSEM classes tested:
                                    1, 3, 4, 5, 6, 7(1), 8, 9, 11, 12(3), 15(2), 17, 18, 20
                                    21,22,23(1),27(1),28(2),29(2),40,41,42,44
                                    45,64,70,71,72(1),74
COSEM classes found but not tested: 100
```