

Certification No. 2215

This is to certify that the metering equipment identified as:

Type: WSA110 Id=WSA110 E- METER.0002.V1.0.1 S=5K
Mgmt. SAP = 1 is "57534731333230313930393137303031" (WSG1320190917001)
Manufactured by: Zhejiang WELLSUN Intelligent Technology 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: 20190912_ZWIT_Zhejiang (2019-09-12)
- 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	16-OCT-2019 10:40:56	02EF88BBE21FF65D4C1806E9029BFB2C1 332FAA0D0B7F73CEB2F6C372D847809
Test 2	HDLC, MODE_E			16-OCT-2019 10:56:15	712A4A081D397BE83784C8AF2B5A8D79 F56FB30255DE3A604C28E344DE0AA7D5
Test 3	TCP			16-OCT-2019 11:32:53	C574BEC067440EF96C625E455DA31D29E A79E390ADB8E8D0BC267D612AB1F1464

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 16th October 2019

Gyöző Kmethy

President

Viktória Varjú Timárné

Certification Engineer

Certification No. 2215

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 = "\Zhejiang WELLSUN Intelligent Technology Co.,Ltd."
  FLAGid = "\WSG"
  Type = "\WSA110"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "320190917001"
  Comment = "\comment 1"
  Comment = "\comment N"
}
```

```
*****
* Summary *
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC	36	0	4	0	32	0
APPL	56	0	17	0	39	0
COSEM	957	0	7	10	940	0
SYMSEC	36	0	9	0	27	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 "57534731333230313930393137303031"
(WSG1320190917001)

Active firmware(s): Id=WSA110 E- METER.0002.V1.0.1 S=5K

COSEM classes tested: 1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 20, 21, 22
23(1), 27(1), 28(2), 29(2), 40, 41, 42, 44, 45, 64
70, 71

COSEM classes found but not tested: (none)

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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 = "\Zhejiang WELLSUN Intelligent Technology Co.,Ltd."
  FLAGid = "\WSG"
  Type = "\WSA110"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "320190917001"
  Comment = "\comment 1"
  Comment = "\comment N"
}
```

```
*****
* Summary *
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	56	0	17	0	39	0
COSEM	957	0	7	10	940	0
SYMSEC	36	0	9	0	27	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 "57534731333230313930393137303031"
(WSG1320190917001)

Active firmware(s): Id=WSA110 E- METER.0002.V1.0.1 S=5K

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 20, 21, 22
23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 44, 45, 64
70, 71

COSEM classes found but not tested: (none)

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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 = "\Zhejiang WELLSUN Intelligent Technology Co.,Ltd."
  FLAGid = "\WSG"
  Type = "\WSA110"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "320190917001"
  Comment = "\comment 1"
  Comment = "\comment N"
}
```

```
*****
* Summary *
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (Communication profile not HDLC)				
APPL	56	0	16	0	40	0
COSEM	957	0	7	10	940	0
SYMSEC	36	0	9	0	27	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 "57534731333230313930393137303031"
(WSG1320190917001)

Active firmware(s): Id=WSA110 E- METER.0002.V1.0.1 S=5K

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 20, 21, 22
23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 44, 45, 64
70, 71

COSEM classes found but not tested: (none)