

## Certification No. 1818

This is to certify that the metering equipment identified as:

**Type: IRANTECH300 CT**

**Mgmt. Logical Device Name: SAP = 1 is "48584530303430373030303030303031" (HXE0040700000001)**

**Manufactured by: HEXING Electrical Co. Ltd.**

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

- CTT version: CTT 3.0 standard edition, 64bits (108)
- Licensed to: 20160314\_HEXING\_Electrical\_Co\_Ltd\_CHI (2016/3/14)
- COSEM object definitions file version: Object\_defs\_v3.0\_Released\_170127.dat
- Media identifier(s): Abstract, Electricity

Tests	Comm. profile & opening mode	Application contexts	Security features	Date and time	Test Result hash value
Test 1 GPRS	TCP	LONG_NAMES_WITH_CIPHERING	ACTIVATE_SECURITY_POLICY, GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING, KEY_TRANSFER	28-APR-2017 22:40:24	0E6686C70E5678E84DCBC72A 91AEDB2B94B40AF64373ADC EBF5297C645DCA8EF
Test 2 optical	HDLC	LONG_NAMES, LONG_NAMES_WITH_CIPHERING	GENERAL_DED_CIPHERING,GEN ERAL_GLO_CIPHERING	28-APR-2017 16:25:35	E7C020961F17297A2EC6D6E4 EE611BEC57B52B339E812DEA BAD9DBA6CCA4EF4B5
Test 3 RS485	HDLC	LONG_NAMES, LONG_NAMES_WITH_CIPHERING	GENERAL_DED_CIPHERING,GEN ERAL_GLO_CIPHERING	28-APR-2017 15:09:21	22335FA83D3498F0FADCB035 29F367D7CD87DC9B88519424 14299D9FEE6221A6

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](http://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 12<sup>th</sup> May 2017



Gyöző Kmethy  
President

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## 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 = "\HEXING Electrical Co. Ltd."
  FLAGid = "\HXE"
  Type = "\IRANTECH300 CT"
  IUTIsModule = FALSE
  SerialNr = "\00000001"
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC
Dedicated Key= TRUE"
  Comment = "\Client:Management for TCP"
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All(Communication profile not HDLC)				
APPL	33	0	17	0	16	0
COSEM	1873	0	2	52	1819	0
SYMSEC	81	0	10	0	71	0

```
Communication profile:          TCP

Application context names:      LONG_NAMES_WITH_CIPHERING

Security mechanisms:            HIGH_LEVEL_SECURITY_GMAC

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

Security features:              ACTIVATE_SECURITY_POLICY
                                GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING
                                KEY_TRANSFER

Logical device(s) found:       SAP = 1 is "48584530303430373030303030303031"
(HXE0040700000001)

COSEM classes tested:          1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20
                                21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 43
                                44, 45, 64, 70, 71, 72, 74

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 = "\HEXING Electrical Co. Ltd."
  FLAGid = "\HXE"
  Type = "\IRANTECH300 CT"
  IUTIsModule = FALSE
  SerialNr = "\00000001"
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC
Dedicated Key= TRUE"
  Comment = "\Client:Public,Management,reading for Optical"
}
```

\*\*\*\*\*  
\* Summary \*  
\*\*\*\*\*

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	66	0	11	0	55	0
COSEM	5647	0	74	98	5475	0
SYMSEC	71	0	24	0	47	0

Communication profile: HDLC

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Security mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: GENERAL\_BLOCK\_TRANSFER, GET  
MULTIPLE\_REFERENCES, RLRQ\_RLRE  
SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER

Security features: GENERAL\_DED\_CIPHERING, GENERAL\_GLO\_CIPHERING

Logical device(s) found: SAP = 1 is "48584530303430373030303030303031"  
(HXE0040700000001)

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
21, 22, 23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 43  
44, 45, 64, 70, 71, 72, 74

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 = "\HEXING Electrical Co. Ltd."
  FLAGid = "\HXE"
  Type = "\IRANTECH300 CT"
  IUTisModule = FALSE
  SerialNr = "\00000001"
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC
Dedicated Key= TRUE"
  Comment = "\Client:Public,Management,reading for RS485"
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
HDLC	36	0	1	0	35	0
APPL	66	0	11	0	55	0
COSEM	5605	0	74	112	5419	0
SYMSEC	71	0	24	0	47	0

```
Communication profile:          HDLC

Application context names:      LONG_NAMES, LONG_NAMES_WITH_CIPHERING

Security mechanisms:            NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features:       GENERAL_BLOCK_TRANSFER, GET
                                MULTIPLE_REFERENCES, RLRQ_RLRE
                                SELECTIVE_ACCESS
                                SERVICE_SPECIFIC_BLOCK_TRANSFER

Security features:              GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING

Logical device(s) found:       SAP = 1 is "485845303034303730303030303031"
                                (HXE0040700000001)

COSEM classes tested:           1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20
                                21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 43
                                44, 45, 64, 70, 71, 72, 74

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