

IEC 61850 Certificate Level A¹

No. 74108428-OPE/INC 15-2254

Issued to:

Applied Technical Systems Company Ltd. (ATS Co., Ltd.) Suite # 604 - VNA8 Building, 8 Tran Hung Dao Street, Hanoi, Vietnam

For the client system:

ATS @Station IEC 61850 - station controller Software version: 1.0.0.35 Hardware version: Dell Latitude E6400 with Windows 7

The client system has not been shown to be non-conforming to:

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TPCL² 1.0 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in ATS @Station IEC 61850", version 1.0, "Model Implementation Conformance Statement for the IEC 61850 Client Interface in ATS @Station IEC 61850", version 1.0 and "TISSUES Implementation Conformance Statement for the IEC 61850 Edition 2 Client Interface in ATS @Station IEC 61850", version 1.0 and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Client Interface in ATS @Station IEC 61850", version 1.0.

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA 61850 IED simulator 5.29.06 and UniCA 61850 Analyzer 5.28.03. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 74108428-OPE/INC 15-2255 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Applied Technical Systems (ATS) Company Ltd. The manufacturer's production process has not been assessed. This certificate does not imply that DNV GL has approved any product other than the specimen tested.

Arnhem, September 7 **Issued by: R. Schimmel** M. Adriaensen Head of Department Verification Manager DNV·GL **Operational Excellence** DNV KEMA is now DNV GL

¹ Level A - Independent test lab with certified ISO 9001 Quality System

² TPCL - Test Procedures Change List

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KEMA Nederland B.V. Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 9035, 6800 ET Arnhem, the Netherlands T +31 26 356 2025 F +331 26 351 36 83 salesdesk@dnvgl.com www.dnvgl.com



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Sec. 1

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TPCL 1.0

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv8, cSrv9, cSrv10, cSrvN1, cSrvN2, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs3, cDs5, cDs6, cDsN1a, cDsN1b, cDsN1c
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp13b, cRp16, cRp17, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr1, cBr2, cBr6, cBr7, cBr13b, cBr16, cBr17, cBr18, cBr32, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2, cCtl3
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cCtl3, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2, cCtl3
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cCtl3, cSBOes4
13: Time Synchronization	cTm1, cTmN1	
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt4, cFt5, cFtN2, cFtN3