IEC 61850 Certificate Level A[1]

Issued to:

Siemens AG
EM DG PRO
Humboldtstr. 59
90459 Nuremberg
Germany

For the client system:

SICAM SCC Human Machine Interface
Software version 9.00.00
Hardware: Notebook FUJITSU CELSIUS H730
with Windows 7 Enterprise

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 TPCL[2] 1.0_rev3 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement
for the IEC 61850 interface in SICAM SCC driver IEC61850 Client, version 1 revision 04", "Model Implementation Conformance Statement for the IEC 61850 interface in SICAM SCC driver IEC61850 Client, version 1 revision 05" and "TISSUES Implementation Conformance Statement for the IEC 61850 Edition 2 Client Interface in SICAM SCC driver IEC61850 Client, version 1 revision 03" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Client Interface in SICAM SCC driver IEC61850 Client, version 1 revision 04".

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):

1	Basic Exchange (20/24)		5	Unbuffered Reporting (21/23)	
2	Data Sets (6/10)		6	Buffered Reporting (25/28)	
2+	Data Set Definition (5/8)		12a	Direct Control (5/9)	
3	Substitution (3/3)		12c	Enhanced Direct Control (5/9)	
4	Setting Group Selection (3/3)		12d	Enhanced SBO Control (7/11)	
4+	Setting Group Definition (4/5)		14	File Transfer (3/8)	
			15	Service Tracking (1/17)	

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA 61850 IED simulator 5.0.13 and UniCA 61850 Analyzer 5.31.01. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10031229-OPE/INC 17-1761 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Siemens. 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, January 13, 2017

P. Cioci
Global Service Line Leader
Operational Excellence of Power
Systems

Issued by:

DNV·GL
DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

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[1] Level A - Independent test lab with certified ISO 9001 Quality System
[2] TPCL - Test procedures change list

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TPCL 1.0_rev3

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs12, cDs13, cDsN10a, cDsN11
3: Substitution	cSub1, cSub3	cSub2
4: Setting Group	cSg2, cSgN1	cSg1
4+: Setting Group Definition	cSg11, cSg14	cSg10, cSg12
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp7, cRp12, cRp13b, cRp16, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr1, cBr2, cBr7, cBr12, cBr13b, cBr16, cBr18, cBr32, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl2
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl2
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl2, cSBOes4
14: File Transfer	cFt1, cFt3, cFtN1	
15: Service Tracking		cTrk7