![UCA International Users Group logo]

IEC 61850 Certificate Level A[1]

No. 10160572-INC 19-2874

Issued to:

Beijing SIFANG Automation Co., Ltd.
No.9, Shangdi Fourth Street
Haidian District
Beijing 100085
Peoples Republic of China

For the client system:

CSD-1321
Smart Communication Management Unit
Software version: 2.5.1
Hardware version: 8SF.004.519/V1
S/N: SFJB400005562519000002

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 1.1.1 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in <CSD-1321>, V1.0", "Model Implementation Conformance Statement for the IEC 61850 Client Interface in < CSD-1321>, V1.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 Edition 2 Client Interface in <CSD-1321>, V1.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Client interface in < CSD-1321>, V1.0".

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):

1	Basic Exchange (13/24)		12a	Direct Control (7/9)	
2	Data Sets (6/10)		12b	SBO Control (9/11)	
2+	Data Set Definition (8/8)		12c	Enhanced Direct Control (7/9)	
3	Substitution (3/3)		12d	Enhanced SBO Control (9/11)	
4	Setting Group Selection (3/3)		13	Time Synchronization (4/4)	
4+	Setting Group Definition (5/5)		14	File Transfer (8/8)	
5	Unbuffered Reporting (22/24)		15	Service Tracking (6/17)	
6	Buffered Reporting (27/28)				

This certificate includes a summary of the test results as carried out at Beijing Sifang in China with UniCA 61850 IED simulator 6.1.31 and UniCA 61850 Analyzer 5.34.01. This document has been issued for information purposes only, and the archived of the DNV GL verification report No. 10160572-INC 19-2873 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Beijing Sifang. 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 13, 2019

N.A. Heijker
Business Leader
Interoperability of Smart Power Systems

Issued by:

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DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

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

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv1, cSrv9, cSrv10, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs11, cDs12, cDs13, cDs14, cDsN10a, cDsN10b, cDsN11
3: Substitution	cSub1, cSub3	cSub2
4: Setting Group	cSg2, cSgN1	cSg1
4+: Setting Group Definition	cSg11, cSg14	cSg10, cSg12, cSg13
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp16, cRp17, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr1, cBr2, cBr6, cBr7, cBr16, cBr17, cBr18, cBr32, cBr33, 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	cTm2, cTmN2
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt4, cFt5, cFtN2, cFtN3
15: Service Tracking		cTrk1, cTrk2, cTrk4, cTrk8, cTrk9, cTrk11