

No. 10017938-OPE/INC 16-1968

**Issued to:**

Beijing Sifang Automation Co., Ltd.  
No.9, Fourth Street,  
Shangdi Information Industry Base  
Haidian District  
BEIJING 100085  
CHINA

**For the server product:**

CSC-101  
Line Protection IED  
Firmware Version: V1.10  
61850 Ed2 Version: V1.00  
S/N: SFJB400003623916000001

The server product 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 Server Test Procedures version 1.0 with TPCL<sup>2</sup> 1.2 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in CSC-101, version 1.0", "Model Implementation Conformance Statement for the IEC 61850 interface in CSC-101, version 1.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in CSC-101, version 1.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in CSC-101, 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) on the station bus network interface:

1 Basic Exchange (21/26)	5 Unbuffered Reporting (21/21)
2 Data Sets (4/7)	6 Buffered Reporting (30/30)
2+ Data Set Definition (24/24)	12a Direct Control (5/18)
3 Substitution (3/3)	12d Enhanced SBO Control (11/28)
4 Setting Group Selection (4/4)	13 Time Synchronization (4/7)
4+ Setting Group Definition (12/13)	14 File Transfer (5/8)
	15 Service Tracking (4/17)


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) on the process bus network interface:

9a GOOSE Publish (8/13)	9b GOOSE Subscribe (12/14)
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This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA 61850 Client Simulator 4.29.03 with test suite Ed2 4.31.05 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10017938-OPE/INC 16-1967 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 Automation Co., 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, June 16, 2016




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**DNV-GL**  
DNV KEMA is now DNV GL



**R. Schimmel**  
Verification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System

<sup>2</sup> TPCL - Test procedures change list

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv12, sSrvN1e, sSrvN1f, sSrvN2, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+: Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs11, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs12, sDsN11, sDsN12
3: Substitution	sSub1, sSub2, sSub3	
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
4+: Setting Group Definition	sSg2, sSg4, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg5, sSg9
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr23, sBr24
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11	sGop5, sGop7
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl16
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl16
13: Time sync	sTm1, sTm2, sTmN1	sTm3
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	
15: Service tracking		sTrk1, sTrk2, sTrk7, sTrk8