

No. 74106487-OPE/INC 15-0387

**Issued to:**

Siemens AG, EM EA PRO  
Wernerwerkdammm 5  
13629 Berlin  
Germany

**For the server product:**

SIPROTEC 5  
7KE85 Fault Recorder  
Software version: V06.01  
Hardware: 7KE85-DAAA-AA0-0AAAA0-AZ5211-  
13112A-ABA000-000AA1-CB1BA2

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> 1.0.1 with product's protocol, model and technical issue implementation conformance statements and the extra information for testing: "SIPROTEC Model Implementation Conformance Statement (MICS) Device x7KE85xx1, Mapping version V06.00.01" and "SIEMENS SIPROTEC 5 PIXIT, PICS, TICS IEC 61850 V06.00 Manual, C5300-G5040-C013-4".

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 (21/26)	9a GOOSE Publish (10/13)
2 Data Sets (4/7)	9b GOOSE Subscribe (12/14)
2+ Data Set Definition (24/24)	12a Direct Control (4/18)
3 Substitution (3/3)	13 Time Synchronization (5/7)
4 Setting Group Selection (3/4)	14 File Transfer (5/8)
4+ Setting Group Definition (11/13)	15 Service Tracking (2/17)
5 Unbuffered Reporting (19/20)	
6 Buffered Reporting (28/29)	

This certificate includes a summary of the test results as carried out at Siemens in Germany with UniCA 61850 Client simulator 4.28.05 with test suite Ed2 3.27.12 and UniCA 61850 Analyzer 5.27.01. This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 74106487-OPE/INC 15-0388 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, February 9, 2015



**M. Adriaensen**  
Head of Department  
Operational Excellence

**Issued by:**



DNV KEMA is now DNV GL



**R. Schimmel**  
Certification 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 1.0.1

Conformance Block	Mandatory	Conditional
1: Basic	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv12, sSrv13, sSrvN1e, sSrvN1f, sSrvN3
2: Datasets	sDs1, sDs10a, sDs15, sDsN1ae	
2+: Dataset Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs11, sDs12, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDsN11, sDsN12
3: Substitution	sSub1, sSub2, sSub3	
4: Setting Group	sSg1, sSg3, sSgN1	
4+: Setting Group Definition	sSg2, sSg4, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg6
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp9, sRp14, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp5, sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr9, sBr14, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr5, sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr23, sBr24
9a: GOOSE Publish	sGop2a, sGop3, sGop4, sGop7, sGop9, sGop10, sGop11	sGop1, sGop6, sGopN1
9b: GOOSE Subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a: Direct Control	sCtl5, sCtl10, sDOns1, sDOns2	
13: Time Sync	sTm1, sTm2, sTmN1	sTm3, sTm4
14: File Transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	
15: Service Tracking		sTrk7, sTrk17