

Issued to:
Siemens AG, IC SG EA
Protection and Substation Control Systems
Wernerwerkdam 5
D-13623 Berlin
Germany

No. 74104438-MOC/INC 13-2336

For the server product:
SIPROTEC V5
7SL87 Differential and Distance Protection
Version 03.01

Issued by:



The server product has not 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 the product's protocol, model and technical issue implementation conformance statements and the extra information for testing: "Siemens SIPROTEC 5 IEC 61850 PIXIT, PICS, TICS V3.0, C53000-G5040-C013-3" and "SIPROTEC Model Implementation Conformance Statement (MICS) According to IEC 61850, Product code 7SL87, Mapping version V03.01".

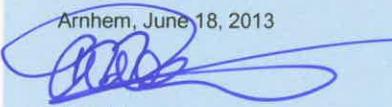
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):


1	Basic Exchange (22/26)	9a	GOOSE Publish (10/12)
2	Data Sets (3/6)	9b	GOOSE Subscribe (12/14)
2+	Data Set Definition (24/24)	12a	Direct Control (11/20)
3	Substitution (3/3)	12b	SBO Control (17/28)
4	Setting Group Selection (3/5)	12c	Enhanced Direct Control (11/20)
5	Unbuffered Reporting (19/20)	12d	Enhanced SBO Control (17/28)
6	Buffered Reporting (28/29)	13	Time Synchronization (6/7)
		14	File Transfer (5/8)
		15	Service Tracking (1/17)

This certificate includes a summary of the test results as carried out at KEMA in the Netherlands with UniCA 61850 Client simulator 4.27.03 with test suite Ed2 3.27.01 and UniCA 61850 Analyzer 5.27.04. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74104438-MOC/INC 13-2337 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by Siemens. The manufacturer's production process has not been assessed. This attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, June 18, 2013


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Director Intelligent Networks & Communication


R. Schimmel
Certification Manager

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

IEC 61850 Certificate Level A¹

Applicable Test Procedures from the UCA International Users Group edition 2 Server Test Procedures version 1.0

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv11, sSrv12, sSrv13, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	
2+: Data Set 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 Selection	sSg1, sSg3, sSgN1	
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp8, sRp9, sRp10, sRp11, sRp12, sRp14, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp5, sRp6, sRp7, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr8, sBr9, sBr10, sBr11, sBr12, sBr14, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr5, sBr6, sBr7, sBr23, sBr24
9a: GOOSE publish	sGop2, 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, sCtl14, sDOes1, sDOes2	sCtl7, sCtl13, sCtl16, sCtl17, sCtl19, sCtl26
12b: SBO control	sCtl5, sCtl6, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6	sCtl4, sCtl7, sCtl16, sCtl17, sCtl19, sCtl26, sCtl27
12c: Enhanced Direct Control	sCtl5, sCtl10, sCtl14, sDOes1, sDOes2	sCtl7, sCtl13, sCtl16, sCtl17, sCtl19, sCtl26
12d: Enhanced SBO control	sCtl5, sCtl6, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl7, sCtl16, sCtl17, sCtl19, sCtl26
13: Time sync	sTm1, sTm2, sTmN1	sTm3, sTm4, sTm5,
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	
15: Service tracking		sTrk7

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version: 6MD85, 6MD86, 7SA84, 7SA86, 7SA87, 7SD84, 7SD86, 7SD87, 7SJ85, 7SJ86, 7SL86 and 7VK87.