IEC 61850 Certificate Level A[1]

No. 10129678-INC 19-2301

Issued to:

Siemens A.G.
EM DG SA&P
Wernerwerkdamm 5
D-13623 Berlin
Germany

For the server product:

SICAM P850 Power Meter
Firmware version: V02.22.01
Hardware version: CC

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[2] 1.2.6 with product's protocol and technical issue implementation conformance statements and the extra information for testing: "SICAM P850 IEC 61850 PICS, PIXIT, TICS, nr. E50417-T8940-C625-A1" and the model implementation conformance statement "SICAM P850 IEC 61850 Logical nodes and data objects (MICS), nr. E50417-T8940-C626-A1".

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 (19/26)	12a	Direct Control (4/18)
2	Data Sets (3/7)	13	Time Synchronization (5/7)
5	Unbuffered Reporting (17/21)	14	File Transfer (5/8)
6	Buffered Reporting (24/30)		

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniGrid SA Simulator 1.4.453 with test suite 1.0.49 and UniCA 61850 Analyzer 5.34.02. This document has been issued for information purposes only, and the archived DNV GL verification report No. 10129678-INC 19-2300 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, March 20, 2019

S.J.T. Mulder
Business Leader
Interoperability of Smart Power Systems

Issued by:

DNV·GL

DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

[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 Server Test Procedures version 1.0 with TPCL 1.2.6

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv8, sSrv9, sSrv10, sSrvN1f
2:	Data Sets	sDs1, sDs10a, sDsN1ae	
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp11, sRp12, 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	sBr8, sBr11, sBr12
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	
13:	Time sync	sTm1, sTm2, sTmN1	sTm3, sTmN2
14:	File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	