UCA
International
Users Group

IEC 61850 Certificate Level A[1]

No. 74106903-OPE/INC 15-1511

Issued to:

Nexans Deutschland GmbH
Advanced Networking Solutions
Bonnenbroicher Str. 2-14
41238 Mönchengladbach
Germany

For the server product:

iGigaSwitch 1604E+SFP 4VI PRO3
Firmware version V4.10A
Management hardware version 3.30

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] 1.0 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in iGigaSwitch 1604E+SFP 4VI PRO3, June 09, 2015", "Model Implementation Conformance Statement for the IEC 61850 interface in iGigaSwitch 1604E+SFP 4VI PRO3, June 09, 2015" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in iGigaSwitch 1604E+SFP 4VI PRO3, June 09, 2015" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in iGigaSwitch 1604E+SFP 4VI PRO3, June 11, 2015".

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 (16/26)	12a	Direct Control (6/19)
2	Data Sets (4/7)	13	Time Synchronization (3/7)
2+	Data Set Definition (24/24)		
5	Unbuffered Reporting (19/20)		

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA 61850 Client simulator 4.29.02 with test suite Ed2 3.29.01 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 report No. 74106903-OPE/INC 15-1512 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Nexans. 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 15, 2015

M. Adriaensen
Head of Department
Operational Excellence

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

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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

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv8, sSrvN1f
2:	Data Sets	sDs1, sDs10a, sDs15, 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
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp9, sRp14, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRpN5
12a:	Direct control	sCtl5, sCtl10, sCtl14, sDOns1, sDOns2	sCtl26
13:	Time sync	sTm1, sTm2, sTmN1	