IEC 61850 Certificate Level A[1]

No. 10270573 -INC 20-3218

Issued to:
RTSoft, AO
Severny Proezd, 1, Chernogolovka
Moscow region, 142432
Russian Federation

For the server product:
SMART-KP2 (СМАРТ-КП2)
Power facility level software and hardware complex
Software version: 1.0.1
IEC 61850 server module version: 3.0.6.51
Hardware version: ЛКЖТ.421457.618
S/N: AT00012

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 2.0_rev5 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in SMART-KP2, Revision 2", "Model Implementation Conformance Statement for the IEC 61850 interface in SMART-KP2, Revision 1" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed.2 interface in SMART-KP2, Revision 1" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in SMART-KP2, Revision 3".

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 (20/28)		9a	GOOSE Publish (11/13)
2	Data Sets (4/7)		9b	GOOSE Subscribe (16/18)
2+	Data Set Definition (24/24)		12a	Direct Control (6/17)
5	Unbuffered Reporting (21/22)		12c	Enhanced Direct Control (7/19)
6	Buffered Reporting (29/32)		13	Time Synchronization (3/7)

This certificate includes a summary of the test results as carried out at NTC FSK UES in Moscow, Russia with UniGrid SA Simulator 1.7.0 with test suite 1.1.0 and UniCA 61850 Analyzer 5.31.01. This document has been issued for information purposes only, and the archived DNV GL verification report No. 10270573-INC 20-3217 rev 0 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by RTSoft. 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, December 25, 2020

Issued by:

N.A. Heijker
Business Leader
Interoperability of Smart Power Systems

DNV·GL
DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

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

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0_rev5

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv8, sSrv9, sSrv10, sSrvN1f
2:	Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+:	Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs11, sDs12, sDsN11, sDsN12
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp15, sRpN5
6:	Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr15
9a:	GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop6, sGopN1, sGopN2
9b:	GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl7, sCtl16
12c:	Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl7, sCtl14, sCtl16
13:	Time sync	sTm1, sTm2, sTmN1	