IEC 61850 Certificate Level A[1]

Issued to:
PJSC "SRPA "Impulse" (ПрАТ "СНВО "Імпульс")
2 Peremohy Square
93405 Severodonetsk
Lugansk region
Ukraine

For the server product:
ImPR1_Dv-1
Microprocessor-based relay protection and automatics device
Firmware version: 4
S/N: 10063

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 2.0.4 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for the IEC 61850 Edition 2 interface in ImPR1_Dv-1 Version 1 / Revision 2", "Model Implementation Conformance Statement (MICS) for the IEC 61850 Edition 2 interface in ImPR1_Dv-1 Version 1 / Revision 2" and "TISSUEs Implementation Conformance Statement (TICS) for the IEC 61850 Edition 2 interface in ImPR1_Dv-1 Version 1 / Revision 1" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Edition 2 interface in ImPR1_Dv-1 Version 1 / Revision 4".
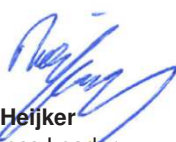
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

1	Basic Exchange (21/26)		9a	GOOSE Publish (11/13)
2	Data Sets (4/7)		9b	GOOSE Subscribe (18/20)
2+	Data Set Definition (24/24)		12a	Direct Control (7/18)
4	Setting Group Selection (4/4)		12d	Enhanced SBO Control (15/28)
5	Unbuffered Reporting (22/23)		13	Time Synchronization (6/7)
6	Buffered Reporting (30/33)		14	File Transfer (5/8)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 1.8.1 with test suite Ed2_Server_TP_2.0_20210330.1 and UniCA 61850 Analyzer 6.40. This document has been issued for information purposes only, and the archived DNV verification report No. 10287774-INC 21-2922 rev 1 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV by PJSC "SRPA "Impulse" (ПрАТ "СНВО "Імпульс"). The manufacturer's production process has not been assessed. This certificate does not imply that DNV has approved any product other than the specimen tested.

Arnhem, June 10, 2021

Issued by:

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

R. Schimmel
Verification Manager

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

IEC 61850 Certificate Level A

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.4

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv9, sSrv10, sSrv12, sSrv13
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
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, 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, sBr13, 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, sGos12, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos6b
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl7, sCtl15, sCtl16
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl7, sCtl15, sCtl16, sCtl26
13: Time sync	sTm1, sTm2, sTmN1	sTm3, sTm4, sTmN2
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	