IEC 61850 Certificate Level A[1]

No. 24TC200132

Issued to:

DAEWOONG ELECTRIC Co., Ltd.
Hwanggeumro 127beon-gil 10, Yangchon-eup,
Gimpo-si, Gyeonggi-do, 10048
Republic of Korea

For the CLIENT:

SA-ICD (Substation Automation
Information Connecting Device)
Model: SPiN-CNAS
Software version: 1.0.0
HW: SPiN-SC2
OS: Windows Server 2019 Standard
S/N: DWE-SNGW2301

Issued by:

Korea Electrotechnology Research Institute
111, Hanggaul-ro, Sangrok-gu, Ansan-si, Gyeonggi-do, 15588, Republic of Korea

The CLIENT 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 Client Test Procedures version 1.2 with product's protocol, model and technical issue implementation conformance statements: "<<SPiN-CNAS_PICS_v1.1>>", "<<SPiN-CNAS_MICS_v1.1>>", "<<SPiN-CNAS_TICS_v1.1>>" and product's extra information for testing: "<<SPiN-CNAS_PIXIT_v1.1>>".

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

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

This Certificate includes a summary of the test results as carried out at KERI in Republic of Korea with UniGrid SA version 1.0.0.0 with test suite Ed2_Client_Rev102_v1.0.0 and UniCA Analyzer v.6.41.00.0. This document has been issued for information purposes only, and the original paper copy of the KERI report: No. 24TC200132 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KERI by Daewoong Co., Ltd. The manufacturer's production process has not been assessed. This certificate does not imply that KERI has certified or approved any product other than the specimen tested.

Republic of Korea, February 19, 2024

W. H. Seo
Technical Manager
Electrification & Energy Evaluation Division

S. J. Rim
Principal Engineer

1 Level A - Independent Test lab with certified [ISO 9001] [ISO/IEC 17025] Quality System
  Level B - Test lab at least following ISO 9001

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Test Procedures version 1.2

	Conformance Block	Mandatory	Conditional
1:	Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5 cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv8, cSrv9, cSrv10, cSrvN1, cSrvN2, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2:	Data Sets		cDs1, cDs2, cDs3, cDs5, cDs6, cDsN1a, cDsN1b, cDsN1c
2+:	Data Set Definition		cDs10, cDs11, cDs12, cDs13, cDs14, cDsN10a, cDsN10b, cDsN11
4:	Setting Group Selection	cSg2, cSgN1	cSg1
4+:	Setting Group Definition	cSg11, cSg14	cSg10, cSg12, cSg13
5:	Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, Rp12, cRp13b, cRp16, cRp17, cRp18, cRpN1
6:	Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr1, cBr2, cBr6, cBr7, cBr12, cBr13b, cBr16, cBr17, cBr18, cBr32, cBr33, cBrN1
9:	GOOSE control block		cGcb1, cGcb2
12a:	Direct control	cCtl4, cCtl5 cDOns1, cDOns2	cCtl1, cCtl2, cCtl3
12b:	SBO control	cCtl4, cCtl5 cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cCtl3, cSBOns4
12c:	Enhanced Direct Control	cCtl4, cCtl5 cDOes1, cDOes2	cCtl1, cCtl2, cCtl3,
12d:	Enhanced SBO control	cCtl4, cCtl5 cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cCtl3, cSBOes4
13:	Time sync	cTm1, cTmN1	cTm2, cTmN2
14:	File transfer	cFt1, cFt3, cFtN1	cFt2, cFt4, cFt5, cFtN2, cFtN3
15:	Service Tracking		cTrk1, cTrk2, cTrk4, cTrk7, cTrk8, cTrk9, cTrk10, cTrk11, cTrk12, cTrk13, cTrk14, cTrk15

111, Hanggaul-ro, Sangnok-gu, Ansan, Gyeonggi-do
Tel: +82-31-8040-4471 Fax: +82-31-8040-4499 dtl@keri.re.kr
Page 2/2
DF-HV-6015-01