IEC 61850 Certificate Level A[1]

Issued to:

KEPCO Knowledge Data & Network Co., Ltd.
58322,
661, Bitgaram-ro,
Naju-si, Jeollanam-do,
Republic of Korea

Issued by: **Korea Testing Laboratory**

For the server product:

xGrids Transfer
KPG-v1
Software Version 1.0
HW : DELL EMC R750
OS : RedHat 8
S/N : 2022-0001

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "KDN_xGrids Transfer_KPG-v1_Server_PICS_v.1", "KDN_xGrids Transfer_KPG-v1_Server _MICS_v.1", "KDN_xGrids Transfer_KPG-v1_Server_TICS_v.1" and the extra information for testing: "KDN_xGrids Transfer_KPG-v1_Server_PIXIT_v.1".
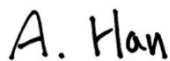
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

1	Basic Exchange (24/26)	12a	Direct Control (8/19)
2	Data Sets (4/7)	12d	Enhanced SBO Control (13/29)
4	Setting Group Selection (4/4)	13	Time Sync (5/7)
5	Unbuffered Reporting (22/23)	14	File Transfer (7/8)
6	Buffered Reporting (32/33)	15	Service Tracking (5/17)

This Certificate includes a summary of the test results as carried out at Korea Testing Laboratory in Republic of Korea with IEC 61850 Ed2 KTL Testing Tool 1.0 with test suite IEC 61850 Ed2 Server Conformance Test V.1.0 and IEC 61850 Ed2 KTL Trace Manager V.1.0. This document has been issued for information purposes only, and the original paper copy of the KTL report: No. TR- 23-010225-01-2 will prevail.

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

Seoul, Feb 03, 2023

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1 Level A - Independent Test lab with accredited ISO/IEC 17025 Quality System

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UCA International Users Group
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Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv6, sSrv9, sSrv10, sSrv12, sSrvN1e, sSrvN2, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
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, sBr23, sBr24
12a: Direct Control	sCtl5a, sCtl10a, sDOns1, sDOns2	sCtl2a, sCtl13a, sCtl15a, sCtl16a
12d: Enhanced SBO Control	sCtl5d, sCtl8d, sCtl9d, sCtl10d, sCtl11d, sCtl25d, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl2d, sCtl15d, sCtl16d
13: Time Sync	sTm1, sTm2, sTmN1	sTm3, sTmN2
14: File Transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2c, sFtN1c
15: Service Tracking		sTrk1, sTrk2, sTrk7, sTrk8, sTrk9