

IEC 61850 Certificate Level A¹

Ref. No: 21TC200802

Issued to:
KEPCO KDN
661 Bitgaram-ro, Naju-si, Jeollanam-do,
Republic of Korea

For the server product:
Merging Unit
SAMU-1000
Firmware version: 1.0
Hardware version: 1.0
 Supporting:
4 phase voltage and current

Issued by:
Korea Electrotechnology Research Institute
111, Hanggaul-ro, Sangnok-gu, Ansan-si, Gyeonggi-do, 15588, Republic of Korea

The Merging Unit product has not been shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-2 and 9-2

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 and the UCAIUG: Test procedures version 1.1 for Sampled Values Publishers according to the "Implementation Guideline for Digital Interface to Instrument Transformers using IEC 61850-9-2 (9-2LE version 2.1)" with TPCL² version 1.1 with 9-2LE publisher's protocol implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in <SAMU-1000, version 1.0>", and extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in < SAMU-1000, version 1.0>".

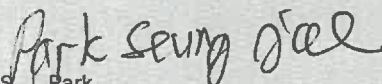
The following IEC 61850 conformance blocks are tested with a positive result (number of relevant and executed test cases / total number of test cases) :

11a	Sampled Value publish (14/17)	50 Hz with	80 samples per cycle
11a	Sampled Value publish (14/17)	60 Hz with	80 samples per cycle
11a	Sampled Value publish (14/17)	50 Hz with	256 samples per cycle
11a	Sampled Value publish (14/17)	60 Hz with	256 samples per cycle

This Certificate includes a summary of the test results as carried out at KERI in Republic of Korea with DANEO v4.21.6389 and Wireshark v.2.4.5. This document has been issued for information purposes only, and the original paper copy of the KERI report: 21 TC200802 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KERI by KEPCO KDN. The manufacturer's production process has not been assessed. This Certificate does not imply that KERI has approved any product other than the specimen tested

Republic of Korea, December 2, 2021


 S. J. Park
 Executive Director
 Power Apparatus Testing and Evaluation Division


 J. H. Kim
 Technical Manager

¹ Level A - Independent Tester with certified ISO 17025 Quality System

² TPCL -- Test procedures change list

Applicable test procedures from the UCAIUG: Test procedures version 1.1 for Sampled Values Publishers according to the "Implementation Guideline for Digital Interface to Instrument Transformers using IEC 61850-9-2 (9-2LE version 2.1)" with TPCL version 1.1

Conformance Block	Mandatory	Conditional
Configuration	Cnf1, Cnf2, Cnf3, Cnf4, Cnf5, Cnf6, Cnf7, Cnf8	
11a Sampled Value Publishing 50 Hz, 80 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp4, Svp8, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 60Hz, 80 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp4, Svp8, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 50Hz, 256 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp5, Svp9, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 60Hz, 256 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp5, Svp9, Svp12, Svp13, Svp15, Svp16, Svp17