IEC 61850 Certificate Level A[1]

International Usersgroup

No. 74101969-MOC/INC 12-01368

Issued to:
Sanion Co., Ltd
#208, ACETECHNO tower,
12 Dangsan-Ro 2-Gil, Yeongdeungpo-Gu,
Seoul, Republic of Korea

For the product:
SUF-K110
Hardware Version 1.0
Firmware Version 1.0
Software Version 1.0

Issued by: **KEMA**

The product has not shown to be non-conforming to:
IEC 61850-6, 7-1, 7-2, 7-3, 7-4 and 8-1
Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in SUF-K110 v1.0", "Model Implementation Conformance Statement for the IEC 61850 interface in SUF-K110 v1.1", "IEC 61850 Tissues Conformance Statement for SUF-K110 v1.0" and product's extra information for testing: "Protocol Implementation eXtra Information for Testing for the IEC 61850 interface in SUF-K110 v1.4 ".

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 as defined in the UCA International Users Group Device Test procedures v2.2b):

1	Basic Exchange (18/24)	9a	GOOSE Publish (8/12)
2	Data Sets (3/6)	9b	GOOSE Subscribe (10/10)
2+	Data Set Definition (23/23)	12a	Direct Control (7/11)
4	Setting Group Selection (3/3)	12d	Enhanced SBO Control (13/19)
5	Unbuffered Reporting (15/18)	13	Time Synchronization (4/5)
6	Buffered Reporting (17/20)	14	File Transfer (4/7)

This certificate includes a summary of the test results as carried out at KERI in Korea with UniCA Client Simulator 3.25.02 with test suite 3.24.02 and UniCA 61850 Analyzer 4.25.00. The test is based on the UCA International Users Group Device Test Procedures version 2.2b. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74101969-MOC/INC 12-01367 will prevail.

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

Arnhem, August 4, 2012

M. Adriaensen
Director Intelligent Networks & Communication

R. Schimmel
Certification Manager

1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.2b with TPCL 1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv7, Srv8, SrvN1f
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
4: Setting Group Selection	Sg1, SgN1a	Sg3
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4	Rp5, Rp6, Rp8, Rp9, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br6, Br10, Br11
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop5, Gop10, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	Ctl2, Ctl7, CtlN11
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2, Ctl7, CtlN6, CtlN11
13: Time sync	Tm1, Tm2, TmN1	TmN2
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	