

## IEC 61850 Certificate Level A<sup>1</sup>

**Issued to:**

KINKEI SYSTEM CORPORATION  
8-2-61 Nanko-Higashi, Suminoe-Ku  
Osaka 559-0031  
Japan

**For the server product:**

SFL-3000  
Travelling Wave Fault Locator  
Software Version RS03047-000  
IEC61850 Module Version: RS03156-000  
S/N: 21800310001

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 for the IEC 61850 interface in SFL-3000, Version RS03156-000, dated Apr 15, 2021", "Model Implementation Conformance Statement for the IEC 61850 interface in SFL-3000, dated Apr 15, 2021" and "Tissues Conformance Statement (TICS) for the IEC 61850 interface in SFL-3000, dated Apr 15, 2021" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in SFL-3000, dated Apr 15, 2021".


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 (20/26)       | 9a GOOSE Publish (10/13)      |
| 2 Data Sets (4/7)              | 9b GOOSE Subscribe (18/20)    |
| 2+ Data Set Definition (24/24) | 13 Time Synchronization (3/7) |
| 5 Unbuffered Reporting (21/23) | 14 File Transfer (5/8)        |
| 6 Buffered Reporting (29/33)   |                               |

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 1.8.0 with test suite 1.1.0 and UniCA 61850 Analyzer 5.34.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10282420-INC 21-3012 rev 2 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV by KINKEI SYSTEM CORPORATION. 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 17, 2021



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

**Issued by:**




**F. Schimmel**  
Verification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System

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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, sSrvN1abcd, sSrvN4                           | sAssN6, sSrv6, sSrvN1e, sSrvN3                      |
| 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                        |
| 5: Unbuffered Reporting | sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8  | sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, 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, sBr15        |
| 9a: GOOSE publish       | sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12  | sGop1, sGop6, sGopN1                                |
| 9b: GOOSE subscribe     | sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6                    | sGos13  |
| 13: Time sync           | sTm1, sTm2, sTmN1  |   |
| 14: File transfer       | sFt1, sFt2ab, sFt4, sFt5, sFtN1ab  |   |