



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

Ref. No: 2013TS02751

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

For the product:  
**SLP-K130-PS**  
**154kV T/L Protection PMU IED**  
**Hardware Version 1.0**  
**Firmware Version 1.0**  
**Software Version 1.0**

Issued by:  
**Korea Electrotechnology Research Institute**

**The product has not shown to be non-conforming to:**  
**IEC 61850 First Edition Parts 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, UCA International Users Group Device Test Procedures version 2.3 with TPCL<sup>2</sup> 1.7, product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in SLK-K130-PS v1.0", "Model Implementation Conformance Statement for the IEC 61850 interface in SLK-K130-PS v1.0", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in SLK-K130-PS v1.0" and product's extra information for testing "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in SLK-K130-PS v1.2".

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

|    |                               |     |                              |
|----|-------------------------------|-----|------------------------------|
| 1  | Basic Exchange (22/24)        | 9a  | GOOSE Publish (10/13)        |
| 2  | Data Sets (3/6)               | 9b  | GOOSE Subscribe (10/11)      |
| 2+ | Data Set Definition (23/23)   | 12a | Direct Control (6/12)        |
| 4  | Setting Group Selection (3/3) | 12d | Enhanced SBO Control (12/19) |
| 5  | Unbuffered Reports (17/19)    | 13  | Time Synchronization (4/5)   |
| 6  | Buffered Reports (19/21)      | 14  | File Transfer (4/7)          |

This Certificate includes a summary of the test results as carried out at KERI in Republic of Korea with UniCA 61850 Client simulator version 4.26.04 with test suite version 3.24.02 and UniCA 61850 analyzer version 5.26.03. This document has been issued for information purposes only, and the original paper copy of the KERI report: 2013TS02751 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KERI by SANION CO., Ltd. 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, September 10, 2013

N. O. Park  
Executive Director  
Power Apparatus Testing and Evaluation Division

Y. J. Lee  
Technical Manager

<sup>1</sup> Level A – Independent Tester with certified ISO 17025 Quality System

<sup>2</sup> TPCL - Test procedures change list



Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL1.7

| Conformance Block          | Mandatory   | Conditional  |
|----------------------------|---|--|
| 1: Basic Exchange          | Ass1, Ass2, Ass3, AssN2, AssN3,<br>AssN4, AssN5<br>Srv1, Srv2, Srv3, Srv4, Srv5,<br>SrvN1abcd, SrvN4  | Srv6, Srv7, Srv8, Srv10,<br>SrvN1e, SrvN1f, SrvN2, SrvN3 |
| 2: Data Sets               | Dset1, Dset10a, DsetN1ae  |  |
| 2+: Data Sets Definition   | Dset2, Dset3, Dset4, Dset5, Dset6,<br>Dset7, Dset8, Dset9<br>DsetN1cd, DsetN2, DsetN3, DsetN4,<br>DsetN5, DsetN6, DsetN7, DsetN8,<br>DsetN9, DsetN10, DsetN11,<br>DsetN12, DsetN13, DsetN14,<br>DsetN15 |  |
| 4: Setting Group Selection | Sg1, Sg3, SgN1a   |  |
| 5: Unbuffered Reporting    | Rp1, Rp2, Rp3, Rp4, Rp7, Rp10,<br>Rp12<br>RpN1, RpN2, RpN3, RpN4  | Rp5, Rp6, Rp8, Rp9, RpN5,<br>RpN6                        |
| 6: Buffered Reporting      | Br1, Br2, Br3, Br4, Br7, Br8, Br9,<br>Br12, Br14<br>BrN1, BrN2, BrN3, BrN4, BrN5  | Br5, Br6, Br10, Br11, BrN6                               |
| 9a: GOOSE publish          | Gop2, Gop3, Gop4, Gop7, Gop9,<br>Gop10a   | Gop1, Gop5, Gop10b, GopN1                                |
| 9b: GOOSE subscribe        | Gos1a, Gos2, Gos3, GosN1, GosN2,<br>GosN3, GosN4, GosN5, GosN6  | Gos1b  |
| 12a: Direct control        | CltN3, CltN8<br>DOns1   | Ctl2, Ctl7,<br>DOns3                                     |
| 12d: Enhanced SBO control  | Ctl3, CltN1, CltN2, CltN3, CltN4,<br>CltN9<br>SBOes1, SBOes2, SBOes3  | Ctl2, Ctl7, CtlN6  |
| 13: Time sync              | Tm1, Tm2, TmN1  | TmN2   |
| 14: File transfer          | Ft1, Ft2ab, Ft4, FtN1ab   |  |