



IEC 61850 Certificate Level A¹

Ref. No: 2013TS02752

Issued to:
Hanbit EDS Co., Ltd.
830 Taplipdong Yuseonggu Daejeon
Republic of Korea

For the product:
PDCNT-V4
GIS Partial Discharge Detector
Hardware version 4.1
Firmware version 1.50

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 TPCL² 1.7, product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in <PDCNT-V4>", "Model Implementation Conformance Statement for the IEC 61850 interface in <PDCNT-V4>", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in <PDCNT-V4>" and product's extra information for testing "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in <PDCNT-V4>".

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 (19/24)	13 Time Synchronization (3/5)
2 Data Sets (3/6)	14 File Transfer (4/7)
2+ Data Set Definition (23/23)	
5 Unbuffered Reports (15/19)	
6 Buffered Reports (18/21)	

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: 2013TS02752 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KERI by Hanbit EDS 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 11, 2013

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

Y. J. Lee
Technical Manager

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

² TPCL - Test procedures change list



Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL 1.7

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv8, SrvN1e, SrvN1f, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Sets Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12 RpN1, RpN2, RpN3, RpN4	Rp6, Rp8, Rp9, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br6, Br10, Br11, BrN6
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	