



IEC 61850 Certificate Level A¹

Ref. No: 2014TS02444

Issued to:

APM TECHNOLOGIES INC.
Mercedes-Benz Building 5F 225-5
Nonhyeon-dong, Gangnam-gu, Seoul, 135-829
Republic of Korea

For the server product:

APM5000 Server S/W v1.0
Partial Discharge Monitoring
System(PDMS)
ADVANTECH UNO-4683
WINDOW 7 Ultimate

Issued by:

Korea Electrotechnology Research Institute

The server 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 1.7.1, product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in APM5000 Server S/W, v1.0", "Model Implementation Conformance Statement for the IEC 61850 interface in APM5000 Server S/W, v1.0", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in APM5000 Server S/W, v1.0" and product's extra information for testing "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in APM5000 Server S/W, v1.0".

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

1 Basic Exchange (20/24)	13 Time Synchronization (4/5)
2 Data Sets (3/6)	
2+ Data Set Definition (23/23)	
6 Buffered Reporting (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 4.28.04 with test suite version 3.29.02 and UniCA 61850 analyzer version 5.28.03. This document has been issued for information purposes only, and the original paper copy of the KERI report: 2014TS02444 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KERI by APM TECHNOLOGIES INC. 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 18, 2014

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 1.7.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv7, Srv8, 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	
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br6, Br10, Br11
13: Time sync	Tm1, Tm2	TmN1, TmN2