

IEC 61850 Certificate Level A¹

Issued to:
On-line Power System Engineering Co., Ltd.
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For the client system:
OPStudio
Electrical Diagnostic and Monitoring System
Software version 1.0

Issued by: **KOREA TESTING LABORATORY**

The client system 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 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2.3 with client system's protocol, model and technical issue implementation conformance statements: "OPStudio_PICS_v1.0", "OPStudio_MICS_v1.0", "OPStudio_TICS_v1.0" and product's extra information for testing: "OPStudio_PIXIT_v1.0".

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 (20/22)	13 Time Synchronization (3/4)
2 Data Sets (7/9)	14 File Transfer (5/8)
6 Buffered Reporting (20/22)	

This certificate includes a summary of the test results as carried out at KTL in the Republic of Korea with IEC 61850 Virtual Server with test suite IEC 61850 Client Conformance Verifier1.0 and KEPCO ANALYZER 1.0. This document has been issued for information purposes only, and the original paper copy of KTL report: No. TR-16-050376-01 will prevail.

Seoul, Sep. 9, 2016

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1 Level A - Independent Test lab with accredited ISO/IEC 17025 Quality System
2 TPCL – test procedure change list

Applicable Test Procedures from the UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2.3

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs3, cDs5, cDsN1a, cDsN1b, cDsN2
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr12, cBrN2, cBrN3, cBrN7, cBrN8, cBrN9	cBr1, cBr2, cBr6, cBr7, cBr13, cBrN1, cBrN4
13: Time sync	cTm1	cTm2, cTmN1
14: File transfer	cFt1, cFt2, cFt3, cFtN1, cFtN2	

