IEC 61850 Certificate Level A[1]

Issued to:

ITRI, Industrial Technology Research Institute

No.195, Sec. 4, Chung Hsing Rd., Chutung, Hsinchu,

31040, Taiwan, R.O.C.

For the client system:

ITRI IEC 61850 Client Tool

Version: 1.0.7

Issued by:

Electronics Testing Center, Taiwan

No.8, Ln. 29, Wenming Rd., Guishan Dist., Taoyuan

City 333, Taiwan (R.O.C.)

The client system 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 Client Test Procedures version 1.0 with TPCL[2] version 1.0_rev3 with the product's protocol, model and technical issue implementation conformance statements: " Protocol Implementation Conformance Statement for the IEC 61850 interface in ITRI IEC 61850 Client Tool, Version 1.0,, Nov 27, 2018", " Model Implementation Conformance Statement for the IEC 61850 interface in ITRI IEC 61850 Client Tool, Version 1.0,, Nov 27, 2018", "TICS for the IEC 61850 Ed2 interface in ITRI IEC 61850 Client Tool, Version 1.0,, Jan 10, 2019", product's extra information for testing: "PIXIT for the IEC 61850 interface in ITRI IEC61850 Client Tool, Version 1.0,, Nov 27, 2018".

The following IEC 61850 conformance blocks are tested with a positive result (number of relevant and executed test cases / total number of test cases as defined in the UCA International Users Group Client Test Procedures):

1	Basic Exchange (20/24)	12b	SBO Control (9/11)
2	Data Sets (10/10)	12c	Enhanced Direct Control (6/9)
5	Unbuffered Reporting (21/23)	12d	Enhanced SBO Control (9/11)
12a	Direct Control (7/9)	14	File Transfer (8/8)

This certificate includes a summary of the test results as carried out at Electronics Testing Center, Taiwan in Taiwan with TriangleMicroWorks Anvil 3.8.0.0 and Wireshark version 2.4.0. This document has been issued for information purposes only, and the original paper copy of the Electronics Testing Center, Taiwan test report: No. 18-10-CAV-010 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to Electronics Testing Center, Taiwan by Industrial Technology Research Institute. The manufacturer's production process has not been assessed. This certificate does not imply that Electronics Testing Center, Taiwan has certified or approved any product other than the specimen tested.

Taoyuan, January 15 2019

Sophia Liu
Head of Section

Hsi-Hsun Yeh
Technical Certifier

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

[2]   Test Procedure Change List

Electronics Testing Center, Taiwan No.8, Ln. 29, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

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Applicable Test Procedures from the UCA International User Group Edition 2 Client Test Procedures version 1.0 with TPCL version 1.0_rev3:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv8, cSrvN2, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Set		cDs1, cDs2, cDs3, cDs4, cDs5, cDs6, cDsN1a, cDsN1b, cDsN1c, cDsN2
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp12, cRp13b, cRp16, cRpN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2, cDOns4
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cSBOns4, cSBOns5
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cSBOes4, cSBOes5
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt4, cFt5, cFtN2, cFtN3

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