|  |  |
| --- | --- |
| **IEC 61850 Certificate Level A/B1** | No. << certificate number>> |
| Issued to: | For the server product: |
| <TEST INITIATOR><FULL ADDRESS> | <PRODUCT ID and NAME><IEC 61850 software/firmware version: <VERSION>>[Hardware version: xxxxx and/or S/N: xxxx, yyyy(in case of multiple samples)][SV publish: F4000S1I4U4, F4800S2I12U4, etc.][SV subscribe: F4800S1I4U4, F4800S2I4U4, etc] |

Issued by: <<test lab>>

**The server product has not been shown to be non-conforming to:**

IEC 61850 Edition 2 with Amendment 1 Parts 6, 7-1, 7-2, 7-3, 7-4, 8-1 [, 9-2

and IEC 61869 First Edition Part 9], [and IEC 61850 Edition 2 Part 7-420]

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10, name space definition 7-4:2007B5 [and 7-420:2019A4], the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.3 (“UCATestProcedureServer61850-8-1Ed2Amd1\_Rev1p3.pdf”) with product’s protocol, model and tissues implementation conformance statements: “<<PICS>>”, “<<MICS>>, <<TICS>>” and product’s extra information for testing: “<<PIXIT>>”.

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

|  |  |
| --- | --- |
|  Configuration (../60) Data Modelling (../24)1a Basic Exchange (../31)1b Associate with IPv6 (../12)2 Data Sets (../7)2+ Data Set Definition (../24)3 Substitution (../3)4 Setting Group Selection (../5)4+ Setting Group Definition (../14)5 Unbuffered Reporting (../26)6 Buffered Reporting (../36)7 Logging (../14) | 9a GOOSE Publish (../14)9b GOOSE Subscribe (../29)9c GOOSE management (…/3)11a SV publish (../22)11b SV subscribe (../24)12a Direct Control (../19)12b SBO Control (../29)12c Enhanced Direct Control (../21)12d Enhanced SBO Control (../29)13a Time Synchronization with SNTP(../8)13b Time Synchronization with PTP (../4)14 File Transfer (../8)15 Service Tracking (../19) |

This certificate includes a summary of the test results as carried out at <<CITY>> in <<COUNTRY>> with <<CLIENT SIMULATOR> <<VERSION>> with test suite <<VERSION>> and <<ANALYZER>> <<VERSION>>. This document has been issued for information purposes only, and the original [paper/archived] copy of the <<TESTLAB>> report: No. <<TESTREPORT NUMBER>> will prevail.

The test has been carried out on the specimen[s] of the product as referred above and submitted to <<TESTLAB>> by <<TEST INITIATOR>>. The manufacturer’s production process has not been assessed. This certificate does not imply that <<TESTLAB>> has certified or approved any product other than the specimen tested.

<<CITY>>, <<DATE>>

<<Manager NAME>> <<Tester NAME>>

<<JOB TITLE>> <<JOB TITLE>>

UCA International Users Group P.O. Box 315, Shell Knob, Mo 65747 USA

1 Level A - Independent Test lab with certified [ISO 9001] [ISO/IEC 17025] Quality System

 Level B - Test lab [at least following ISO 9001] [with certified ISO 9001] [with certified ISO/IEC 17025]

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Applicable Server Test Procedures from the UCA International Users Group Edition 2 Amendment 1 Server Test Procedures version 1.3

| **Conformance Block** | **Mandatory** | **Conditional**  |
| --- | --- | --- |
| Configuration | sCnf1, sCnf2, sCnf3, sCnf4, sCnf5, sCnf20, sCnf21, sCnf22, sCnf25, sCnf26, sCnf29, sCnf40, sCnf41, sCnf42, sCnf44, sCnf45, sCnf46, sCnf50, sCnf51, sCnf53, sCnf60, sCnf70, sCnf71, sCnf72, sCnf73, sCnf74, sCnf75, sCnf80, sCnf81, sCnf82, sCnf83, sCnf85 | sCnf10, sCnf11, sCnf23, sCnf24, sCnf27, sCnf28, sCnf43, sCnf47, sCnf48, sCnf49, sCnf52, sCnf61, sCnf62, sCnf63, sCnf64, sCnf65, sCnf84, sCnf100, sCnf120, sCnf121, sCnf122, sCnf123, sCnf124, sCnf125, sCnf126, sCnf127, sCnf128, sCnf129 |
| Data modelling | sMdl1, sMdl2, sMdl3, sMdl4, sMdl6, sMdl7, sMdl8, sMdl9, sMdl10, sMdl12, sMdl15, sMdl16, sMdl18, sMdl19 | sMdl14, sMdl17, sMdl20, sMdl21, sMdl22, sMdl23, sMdl24, sMdl25, sMdl26, sMdl27 |
| 1a: Basic Exchange | sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv6, sSrv8, sSrvN1abcdf, sSrvN4 | sAss5, sAssN6, sAssN7, sSrv9, sSrv10, sSrv11, sSrv12, sSrv13, sSrv15, sSrv16, sSrv17, sSrvN1e, sSrvN2, sSrvN3  |
| 1b: Associate with IPv6 | sAss61, sAss62, sAss63, sAss64, sAss66, sAss6N2, sAss6N3, sAss6N4, sAss6N5 | sAss65, sAss6N6, sAss6N7 |
| 2: Data Sets | sDs1, sDs10a, sDsN1ae | sDs10b, sDs15, sDsN1b, sDsN13 |
| 2+: Data Set Definition  | sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10 | sDs11, sDs12, sDsN11, sDsN12 |
| 3: Substitution | sSub1, sSub2, sSub3 |  |
| 4: Setting Group  Selection | sSg1, sSg3, sSgN1 | sSg11, sSg13 |
| 4+: Setting Group  Definition  | sSg2, sSg4, sSg6, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5 | sSg5, sSg9, sSg14 |
| 5: Unbuffered Reporting | sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRp23, sRpN1, sRpN2, sRpN3, sRpN4, sRpN5, sRpN7, sRpN8, sRpN9 | sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRp15, sRp17 |
| 6: Buffered Reporting | sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr23, sBr24, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN7, sBrN8, sBrN9, sBrN10 | sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr15, sBr17 |
| 7: Logging | sLog2, sLog3, sLog4, sLog5, sLog6, sLog7, sLog8, sLog9, sLog11, sLog12, sLog13, sLogN1, sLogN2 | sLog10 |
| 9a: GOOSE Publish | sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12, sGop13 | sGop1, sGop2b, sGop5, sGop6, sGopN1, sGopN2 |
| 9b: GOOSE Subscribe | sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos14, sGos15, sGos16, sGos17, sGos20, sGos21, sGos22, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6, sGosN7 | sGos4, sGos6b, sGos13 |
| 9c: GOOSE mngt  | sGom1, sGom2, sGomN1 |  |
| 11a: Sampled Values Publish | sSvp1, sSvp2, sSvp3, sSvp4, sSvp5, sSvp6, sSvp7, sSvp8, sSvp14, sSvp18 | sSvp9, sSvp10, sSvp11, sSvp12, sSvp13, sSvp15, sSvp16, sSvp17, sSvp20, sSvp21, sSvp22, sSvp23 |
| 11b: Sampled Values Subscribe | sSvs1, sSvs2, sSvs3, sSvs4, sSvs5, sSvs6, sSvs7, sSvs8, sSvs9, sSvs10, sSvs11, sSvs14, sSvs15, sSvs16, sSvs17, sSvs18, sSvsN1, sSvsN2, sSvsN3, sSvsN4, sSvsN5, sSvsN6 | sSvs12, sSvs13 |
| 12a Direct control | sCtl5, sCtl10, sDOns1, sDOns2 | sCtl2, sCtl3, sCtl7, sCtl13, sCtl15, sCtl16, sCtl17, sCtl18, sCtl21, sCtl23, sCtl24, sCtl28, sCtl29, sDOns4, sDOns5 |
| 12b SBO control | sCtl4, sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6, sSBOns8 | sCtl2, sCtl3, sCtl6, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl20, sCtl21, sCtl23, sCtl24, sCtl27, sCtl28, sCtl29, sSBOns4, SBOns5, sSBOns7 |
| 12c Enhanced Direct  Control | sCtl5, sCtl10, sDOes1, sDOes2 | sCtl2, sCtl3, sCtl7, sCtl13, sCtl14, sCtl15, sCtl16, sCtl17, sCtl18, sCtl21, sCtl23, sCtl24, sCtl26, sCtl28, sCtl29, sDOes4, sDOes5 |
| 12d Enhanced SBO  control | sCtl4, sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8 | sCtl2, sCtl3, sCtl6, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl20, sCtl21, sCtl23, sCtl24, sCtl26, sCtl28, sCtl29, sSBOes4, sSBOes5, sSBOes7 |
| 13a Time sync SNTP | sTm1, sTm2, sTm7, sTmN1 | sTm3, sTm4, sTm5, sTmN2 |
| 13b Time sync PTP | sTmP1, sTmP2, sTmPN1 | sTmP5 |
| 14 File transfer | sFt1, sFt2ab, sFt4, sFt5, sFtN1ab | sFt2c, sFt3, sFtN1c |
| 15 Service tracking |  | sTrk1, sTrk2, sTrk3, sTrk4a, sTrk4b, sTrk5a, sTrk5b, sTrk6, sTrk7, sTrk8, sTrk9, sTrk10, sTrk11, sTrk12, sTrk13, sTrk14, sTrk15, sTrk16, sTrk17 |

[ All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version:

* << ID and NAME of variant 1>>
* << ID and NAME of variant N>> ]

|  |  |
| --- | --- |
| Test case | Limitation or Comment |
|  |  |

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Instructions not to be included in the actual certificate.

For applicable conditional/mandatory tests that have a test tool limitation and the test result did not fail the result has to be set to “inconclusive” and the limitation specified. If none leave it blank or remove the table.