IEC 61850 Certificate Level A[1]

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No. 74104759-MOC/INC 13-3261

Issued to:
ALSTOM GRID UK Ltd.
St. Leonards Avenue
Stafford ST17 4LX
United Kingdom

For the server product:
P40 Agile P14DZ
Directional Feeder Management IED
Software version 50H
Hardware version A

Issued by: **KEMA**

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, the UCA International Users Group Device Test Procedures version 2.3 with TPCL[2] version 1.5, the product's protocol, model and technical issue implementation conformance statements: "P40 Agile PICS Protocol Implementation Conformance Statement, version 01", "MiCOM P14DZ MICS Model Implementation Conformance Statement, platform software version 50" and "P40 Agile TICS Tissues Implementation Conformance Statement, platform software version 50" and the extra information for testing: "PIXIT Protocol Implementation eXtra Information for Testing for the IEC 61850 interface in P40Agile, platform software version 50".

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 (19/24)	12a	Direct Control (4/12)
2	Data Sets (3/6)	12b	SBO Control (8/14)
4	Setting Group Selection (2/3)	12c	Enhanced Direct Control (6/13)
5	Unbuffered Reporting (16/19)	12d	Enhanced SBO Control (11/19)
6	Buffered Reporting (18/21)	13	Time Synchronization (3/5)
9a	GOOSE Publish (10/13)	14	File Transfer (6/7)
9b	GOOSE Subscribe (10/11)		

This certificate includes a summary of the test results as carried out at KEMA in Netherlands with UniCA 61850 client simulator version 4.26.04 with test suite 3.26.00 and UniCA 61850 analyzer 5.26.03. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74104759-MOC/INC 13-3260 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by ALSTOM GRID. The manufacturer's production process has not been assessed. This attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, September 10, 2013

M. Adriaensen
Director Intelligent Networks & Communication

R. Schimmel
Certification Manager

1 Level A - Independent test lab with certified ISO 9001 quality system
2 TPCL - test procedures change list

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.5

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, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12 RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7, Gop10a	Gop1, Gop5, Gop6, Gop10b, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	
12b: SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl7, CtlN11
12c: Enhanced Direct Control	CtlN3, CtlN8, DOes2, DOes5	Ctl7, CtlN11
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version: P14DB, P14DG, P14DL, P14NB and P14NZ.