



## IEC 61850 Certificate Level B1

No. 50745.6040.801

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Issued to: ALSTOM Grid UK LTD St. Leonards Avenue Stafford, ST17 4LX United Kingdom

Issued by:
ALSTOM Grid UK LTD
Automation Products Laboratories



For the product:
P40 AGILE (P14DZ)
Directional Feeder Management IED
Software Version 50H
Hardware Version A

The 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<sup>2</sup> version 1.5, with product's protocol, model and technical issue implementation conformance statements: "P40 Agile PICS Protocol Implementation Conformance Statement, Version 01", "P40 Agile TICS Tissues Implementation Conformance Statement, Version 01" and extra information for testing "P40 Agile PIXIT Protocol Implementation eXtra Information for Testing for the IEC 61850 Interface in P40Agile, Version 01".

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 (19/24)
- 2 Data Sets (3/6)
- 4 Setting Group Selection (2/3)
- 5 Unbuffered Reports (16/19)
- 6 Buffered Reports (18/21)
- 9a GOOSE Publish (13/13)
- 9b GOOSE Subscribe (10/11)

- 12a Direct Control (6/12)
- 12b SBO Control (8/14)
- 12c Enhanced Direct Control (6/13)
- 12d Enhanced SBO Control (11/19)
- 13 Time Synchronization (3/5)
- 14 File Transfer (6/7)

This certificate includes a summary of the test results as carried out at ALSTOM's laboratories in Stafford, UK with UniCA 61850 client simulator version 4.26.04 with test suite 3.24.00 and the UniCA 61850 analyzer version 5.26.04. This document has been issued for information purposes only, and the original copy of the ALSTOM report: No. 50745.6040.301 will prevail.

The tests have been carried out on one single specimen of the above mentioned product(s), submitted by ALSTOM. The certificate does not include an assessment of the manufacturer's production process. This certificate is valid for the product specified only, which has been tested by Automation Products Laboratories at ALSTOM.

Stafford, 07-05-2013

Allen Millard

Automation Products Laboratories Manager

Rakesh Kumar Bali

Test Engineer

<sup>1</sup> Level B – Tester with ISO 9000 or ISO 17025 Quality System

<sup>2</sup> TPCL – Test Procedure Change List



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,	Srv6, Srv7, Srv8,
	AssN5, Srv1, Srv2, Srv3, Srv4, Srv5,	SrvN1e, SrvN3
	SrvN1abcd, SrvN4	
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12,	Rp5, Rp8, Rp9, RpN5,
	RpN1, RpN2, RpN3, RpN4	RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12,	Br5, Br10, Br11, BrN6
	Br14, BrN1, BrN2, BrN3, BrN4, BrN5	
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7, Gop10a	Gop1, Gop5, Gop6,
		Gop8, Gop9, Gop10b,
		GopN1, GopN2
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2,	Gos1b
	GosN3, GosN4, GosN5, GosN6	
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	Ctl7, CtlN11
12b: SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl7, CtlN11
12c: Enhanced Direct	CtlN3, CtlN8, DOes2, DOes5	Ctl7, CtlN11
Control		
12d: Enhanced SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9,	Ctl7, CtlN11
	SBOes1, SBOes2, SBOes3	
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c