UCA International Users Group

IEC 61850 Certificate Level A[1]

No. 10013527-OPE/INC 15-2916

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

For the server product:
MiCOM P40 Agile P44T
Catenary Distance Protection
Software version: 02F
Hardware version: M

The server product has not been 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 Server Device Test Procedures version 2.3 with TPCL[2] version 1.8, the product's protocol, model and technical issue implementation conformance statements: "MiCOM P40 Agile Px4x Protocol Implementation Conformance Statement, Px4x/EN PC/C", "MiCOM P40 Agile P44T Model Implementation Conformance Statement, P44T/EN/MC/B" and "MiCOM P40 Agile P44T Tissues Implementation Conformance Statement, P44T/EN/TC/B" and the extra information for testing: "MiCOM P40 Agile P44T Protocol Implementation eXtra Information for Testing, P44T/EN/PX/B".

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 (21/24)	12a	Direct Control (6/12)
2	Data Sets (3/6)	12b	SBO Control (8/14)
4	Setting Group Selection (3/3)	12c	Enhanced Direct Control (7/13)
5	Unbuffered Reporting (17/19)	12d	Enhanced SBO Control (12/19)
6	Buffered Reporting (24/28)	13	Time Synchronization (3/5)
9a	GOOSE Publish (12/12)	14	File Transfer (6/7)
9b	GOOSE Subscribe (11/11)		

This certificate includes a summary of the test results as carried out at ALSTOM GRID in the United Kingdom with UniCA 61850 Client Simulator version 4.29.03 with test suite version 3.29.00 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10013527-OPE/INC 15-2915 will prevail.

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

Arnhem, November 20, 2015

M. Adriaensen
Head of Department
Operational Excellence

Issued by:

DNV·GL
DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

[1] Level A - Independent test lab with certified ISO 9001 Quality System
[2] TPCL - Test procedures change list

KEMA Nederland B.V. Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 9035, 6800 ET Arnhem, the Netherlands
T +31 26 356 2025 F +31 26 351 36 83 salesdesk@dnvgl.com www.dnvgl.com

Page 1/2

Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 2.3 with TPCL 1.8

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3, Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN2, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, Sg3, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, Rp15, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br15, Br20, Br21, Br22, Br25, Br26, Br27, Br28, BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br5, Br8, Br10, Br11, Br12
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop5, Gop6, Gop7, Gop10b, GopN1, GopN2
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b, Gos4
12a: Direct Control	CtlN3, CtlN8, DOns1	Ctl2, CtlN11 DOns3
12b: SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl2, CtlN11
12c: Enhanced Direct Control	CtlN3, CtlN8, DOes2, DOes5	Ctl2, CtlN6, CtlN11
12d: Enhanced SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9, SBOes1, SBOes2, SBOes3	Ctl2, CtlN6, CtlN11
13: Time Sync	Tm1, Tm2	TmN1
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c

KEMA Nederland B.V. Utrechtseweg 310, 6812 AR Arnhem, P.O. Box 9035, 6800 ET Arnhem, the Netherlands
T +31 26 356 2025 F +31 26 351 36 83 salesdesk@dnvgl.com   www.dnvgl.com

Page 2/2