IEC 61850 Certificate Level A[1]

No. 12131046-OPE/INC 14-1086

Issued to:

ZIV GRID Automation S.L.
Parque Tecnológico, 210
48170 Zamudio, Bizkaia
Spain

For the server product:

ZLV-G
Distance protection
Firmware version 7.4R
Hardware 8ZLV-G3F-26S3C6QML

Issued by:

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 1.7, the product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in ZLV from ZIV Aplicaciones y Tecnología Version 0.0", "Model Implementation Conformance Statement for the IEC 61850 interface in ZLV from ZIV Aplicaciones y Tecnología Version 0.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in #ZLV from ZIV Aplicaciones y Tecnología Version 0.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in ZLV from ZIV Aplicaciones y Tecnología Version 0.0".

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

This certificate includes a summary of the test results as carried out at ZIV GRID Automation S.L. in Spain with UniCA 61850 Client simulator 4.26.04 with test suite 3.27.00 and UniCA 61850 Analyzer 5.27.04. This document has been issued for information purposes only, and the original paper copy of the DNV KEMA report No. 12131046-OPE/INC 14-1096 will prevail.

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

Arnhem, May 13, 2014

M. Adriaensen
Head of Department Operational Excellence

R. Schimmel
Certification Manager

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

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.7

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, SrvN1f, SrvN2, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, Sg3, SgN1a	
4+: Setting Group Definition	Sg2, Sg4, SgN1b, SgN2, SgN3, SgN4, SgN5	
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, Gop9, Gop10a	Gop1, Gop6, Gop10b, GopN1, GopN2
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct Control	CtlN3, CtlN8 DOns1	Ctl2, Ctl7
12b: SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl2, Ctl7
12c: Enhanced Direct Control	CtlN3, CtlN8 DOes2, DOes5	Ctl2, Ctl7, CtlN6
12d: Enhanced SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2, Ctl7, CtlN6
13: Time Sync	Tm1, Tm2, TmN1	Tm3
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c