

No. 10013812-OPE/INC 16-1827

Issued to:

Doble Engineering Company
85 Walnut Street
Watertown, MA 02472
USA

For the server product:

F6150sv
Power system simulator
Software version: 5.6.1
S/N: 111406241

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

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL² 1.2 with product's protocol and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in F6150sv, version 2.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface in F6150sv, version 1.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in F6150sv, version 2".

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):

9a	GOOSE Publish (7/13)	13	Time Synchronization (3/7)
9b	GOOSE Subscribe (12/14)		

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA GOOSE Simulator 2.27.01 with test suite 2.27.08 and UniCA 61850 Analyzer 5.31.00. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10013812-OPE/INC 16-1828 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Doble. 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, March 30, 2016



M. Adriaensen
Head of Department
Operational Excellence

Issued by:



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

Copyright © KEMA Nederland B.V. Arnhem, the Netherlands. All rights reserved. It is prohibited to update or change this certificate in any manner whatsoever, including but not limited to dividing it into parts.

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL 1.2.

Conformance Block	Mandatory	Conditional
9a: GOOSE Publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11	sGop5
9b: GOOSE Subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
13: Time Sync	sTm1, sTm2, sTmN1	