

## IEC 61850 Certificate Level A<sup>1</sup>

**Issued to:**

Doble Engineering Company  
123 Felton Street  
Marlborough, MA 01752  
USA

**For the server product:**

F8300 Power System Simulator  
Firmware version: 1.1.2.1546  
S/N: 9999062130008  
SV Publish: F4000S114U4, F4800S114U4, F4800S2112U12

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

### IEC 61850 Edition 2 with Amendment 1 Parts 6, 7-1, 7-2, 7-3, 7-4, 8-1, 9-2 and IEC 61869 First Edition Part 9

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 and the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.2 with product's protocol, model and tissues implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in F8200, F8300, Dated 2023.10.30", "Model Implementation Conformance Statement for the IEC 61850 interface in the Doble F8200 and F8300. Dated 2023.11.03", "TISSUEs Implementation Conformance Statement (TICS) for the IEC 61850 Edition 2 Amendment 1 Server interface in F8200 and F8300, dated 2023.11.03", and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 server interface in Doble F8200 and F8300, Dated 2023.11.03".

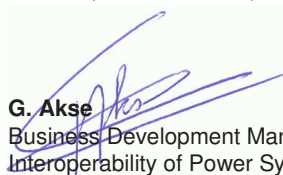
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

9a GOOSE publish (8/13)	11a SV publish (17/22)
9b GOOSE subscribe (25/27)	13a Time Synchronization with SNTP (5/8)
	13b Time Synchronization with PTP (3/4)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 2.2.1 with test suite 20231030 and UniCA 61850 Analyzer 6.44.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10373605-DSO 23-3235 rev 2 will prevail.

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

Arnhem, November 28, 2023



**G. Akse**  
Business Development Manager  
Interoperability of Power Systems

Issued by:




**R. Schimmel**  
Verification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System  
UCA International Users Group P.O. Box 315, Shell Knob, MO 65747 USA

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Applicable Server Test Procedures from the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.2

Conformance Block	Mandatory	Conditional
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop5
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos14, sGos15, sGos20, sGos21, sGos22, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6, sGosN7	sGos13
11a: Sampled Values publish	sSvp1, sSvp2, sSvp3, sSvp4, sSvp5, sSvp6, sSvp7, sSvp8, sSvp14, sSvp18	sSvp9, sSvp10, sSvp12, sSvp13, sSvp15, sSvp16, sSvp17
13a: Time sync SNTP	sTm1, sTm2, sTm7, sTmN1	sTmN2
13b: Time sync PTP	sTmP1, sTmP2, sTmPN1	

Test case	Comments
All Data modelling and SCL configuration, except sCnf5	Performed according to Redmine #6595 product is test equipment

All applicable configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version:

- F8200 Power System Simulator