



IEC 61850 Certificate Level A¹

No. 12143022-OPE/INC 14-1087

Issued to:
DF Núcleo
Avenida de la Industria, 24
28760 Tres Cantos, Madrid
Spain

For the server product:
Sherpa R5000
Bay Control Unit
MPB 590 (IEC61850 module):
Hardware version B10 rev A
Software version 5.10



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 TPCL² version 1.7, the product's protocol, model and technical issue implementation conformance statements: "PICS for the IEC 61850 interface in Sherpa-R-5000", "MICS for the IEC 61850 interface in Sherpa-R-5000" and "TICS for the IEC 61850 interface in Sherpa-R-5000" and the extra information for testing: "PIXIT for the IEC 61850 interface in Sherpa-R-5000".

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 (17/24)	9a	GOOSE Publish (10/13)
2	Data Sets (3/6)	9b	GOOSE Subscribe (10/11)
5	Unbuffered Reporting (15/19)	12a	Direct Control (5/12)
6	Buffered Reporting (17/21)	12b	SBO Control (7/14)
		12c	Enhanced Direct Control (6/13)
		12d	Enhanced SBO Control (11/19)
		13	Time Synchronization (3/5)

This certificate includes a summary of the test results as carried out at DF Núcleo in Spain with UniCA 61850 Client Simulator 4.28.04 with test suite 3.28.00 and UniCA 61850 Analyzer 5.28.03. This document has been issued for information purposes only, and the original paper copy of the DNV KEMA report No. 12143022-OPE/INC 14-1097 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV KEMA by DF Núcleo. 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, June 17, 2014

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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, Srv8, SrvN1f
2: Data Sets	Dset1, Dset10a, DsetN1ae	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12 RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop7, Gop9, Gop10a	Gop1, Gop5, Gop6, GopN1
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct Control	CtIN3, CtIN8, DOns1	CtIN11, DOns3
12b: SBO Control	CtI3, CtIN1, CtIN2, CtIN3, CtIN4, SBOs2	CtIN11
12c: Enhanced Direct Control	CtIN3, CtIN8, DOes2, DOes5	CtIN6, CtIN11
12d: Enhanced SBO Control	CtI3, CtIN1, CtIN2, CtIN3, CtIN4, CtIN9 SBOes1, SBOes2, SBOes3	CtIN6, CtIN11
13: Time Sync	Tm1, Tm2, TmN1	