



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

International Usersgroup

No. 30710079-Consulting 07-0414

Issued to:  
Areva T&D  
Lyoner Strasse 44-48  
D-60528 Frankfurt am Main  
Germany

For the product:  
MiCOM P439  
Distance Protection and Control Unit  
Firmware version -613 -206



The product has not shown to be non-conforming to:  
**IEC 61850-6, 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 with product's protocol, model and technical issue implementation conformance statements: "P439 Distance Protection and Control Unit Version -613 -206 PICS, MICS and Address Assignment List", "PX30 Version -6xx -2xx Technical Issues (TISSUES)" and product's extra information for testing: "PX3X/EN PX Version 01C Protocol Implementation Extra Information for Testing (PIXIT) of the IEC 61850 Communication Interface with Control".

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 as defined in the UCA International Users Group Device Test procedures v1.1):

|  |                                    |
|--|------------------------------------|
| 1 Basic Exchange (16/23)                             | 12a Direct Control (4/11)          |
| 2 Data Sets (2/5)                                    | 12c Enhanced Direct Control (5/11) |
| 5 Unbuffered Reporting (10/13)                       | 12d Enhanced SBO Control (10/17)   |
| 9ab Generic Object Oriented Substation Event (16/20) | 13 Time Synchronization (3/4)      |
|  | 14 File Transfer (3/6)             |

This Certificate includes a summary of the test results as carried out at in with UniCASim 61850 version 2.15.00 with test suite 2.15.00 and UniCA 61850 analyzer 4.15. The test is based on the UCA International Users Group Device Test Procedures version 1.1. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 30710079-Consulting 07-0413 will prevail.

The test have been carried out on one single specimen of the products as referred above and submitted to KEMA by Areva. The manufacturer's production process has not been assessed. This Certificate does not imply that KEMA has certified or approved any product other than the specimen tested.

Arnhem, June 5, 2007

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Managing Director KEMA Consulting

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1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 1.1

| <b>Conformance Block</b>     | <b>Mandatory</b>   | <b>Conditional</b> |
|------------------------------|--|--------------------|
| 1: Basic Exchange            | Ass1, Ass2, Ass3,<br>AssN2, AssN3, AssN4, AssN5<br>Srv1, Srv2, Srv3, Srv4, Srv5,<br>SrvN1abcd, SrvN4 | SrvN1e, SrvN3      |
| 2: Data Sets                 | Dset1, DsetN1ae  |                    |
| 5: Unbuffered Reporting      | Rp1, Rp2, Rp3, Rp4, Rp7<br>RpN1, RpN2, RpN3, RpN4  | Rp5                |
| 9a: GOOSE publish            | Gop2, Gop3, Gop4, Gop7   | Gop1, Gop6, GopN1  |
| 9b: GOOSE subscribe          | Gos1, Gos2, Gos3, GosN1, GosN2,<br>GosN3, GosN4, GosN5, GosN6  |                    |
| 12a: Direct control          | CtlN3, CtlN8, DOns1, DOns3   |                    |
| 12c: Enhanced Direct control | CtlN3, CtlN8, DOes2, DOes5   | Ctl7               |
| 12d: Enhanced SBO control    | Ctl3, CtlN1, CtlN2, CtlN3, CtlN4<br>CtlN9, SBOes1, SBOes2, SBOes3                                    | Ctl7               |
| 13: Time sync                | Tm1, Tm2, TmN1   |                    |
| 14: File transfer            | Ft1, Ft2ab, FtN1ab   |                    |