



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

No. 30620085-Consulting 2006-0443

Issued to:  
Areva T&D  
St. Leonards Avenue  
ST17 4LX Stafford  
United Kingdom

For the product:  
Areva MiCOM P545  
Current Differential Relay  
Firmware version 51D



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: "MiCOM P545 Current Differential Relay Versions 41 and 51 PICS and MICS", "MiCOM P54x Current Differential Relay Versions 41 and 51 TICS" and product's extra information for testing: "MiCOM P54x Current Differential Relay Versions 41 and 51 PIXIT".

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):

1	Basic Exchange	(19/23)	9ab	GOOSE	(16/20)
2	Data Sets	(2/5)	13	Time Synchronization	(3/4)
5	Unbuffered Reporting	(11/13)	14	File Transfer	(3/6)

This Certificate includes a summary of the test results as carried out at the KEMA laboratory at Arnhem, The Netherlands, with UniCAsim 61850 version 2.13.00 test system running test suite "61850 Conformance Test 2.13.07" and UniCA 61850 analyzer version 4.13.02. 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. 30620085-Consulting 2006-0442 will prevail.

The tests have been carried out on one single specimen of the products as referred above and submitted to KEMA by Areva T&D. 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, August 16, 2006

S.J.L.M. Janssen  
Managing Director KEMA Consulting

R. Schimmel  
Certification Manager

1 Level A – Independent Test Lab with certified ISO 9000 or ISO 17025 Quality System

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Performed test cases

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, SrvN3
2: Data Sets	Dset1, DsetN1ae	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7 RpN1, RpN2, RpN3, RpN4	Rp5, RpN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
13 Time sync	Tm1, Tm2, TmN1	
14 File transfer	Ft1, Ft2ab, FtN1ab	



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