



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

No. 50745.6145.801

Issued by:

**AREVA** AREVA T&D UK LTD  
Automation Products Laboratories

For the product:

**Areva MiCOM P145**  
Feeder Management Relay  
Software Version 42B  
Hardware Version J

Issued to:

AREVA T&D UK LTD  
St. Leonards Avenue  
Stafford, ST17 4LX  
United Kingdom

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

## IEC 61850-7-1, 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 TISSUE implementation conformance statements: "Protocol Implementation Conformance Statement (PICS), version 42B", "Model Implementation Conformance Statement (MICS), version 42B", "IEC61850 Tissues Implementation Statement (TICS), version 42B", and extra information for testing "Protocol Implementation EXTRA INFORMATION FOR TESTING, version 42".

The following IEC 61850 conformance blocks are 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 version 2.2):

1	Basic Exchange (23/24)	12a	Direct Control (6/12)
2	Data Sets (2/6)	12b	SBO Control (9/16)
4	Setting Group Selection (2/3)	12c	Enhanced Direct Control (6/13)
5	Unbuffered Reports (15/18)	12d	Enhanced SBO Control (11/20)
6	Buffered Reports (17/20)	13	Time Synchronization (3/5)
9ab	Generic Object Oriented Substation Events (20/21)	14	File Transfer (6/7)

AREVA T&D grants this Certificate on account of tests performed at the AREVA T&D's laboratories in Stafford, UK with UniCASim 61850 ver. 3.17 with test suite 3.17 simulating an IEC 61850 client and the UniCA 61850 analyzer version 4.17. The tests are based on the UCA International Users Group Device Test Procedures Version 2.2. This certificate has been issued for information purposes only and the original copy of the AREVA T&D report: No. 50745.6145.301 will prevail.

The tests have been carried out on one single specimen of the above mentioned product(s), submitted by AREVA T&D. The certificate does not include an assessment of the manufacturer's production process. This certificate is valid for the product specified only, which has been tested by Automation Products Laboratories at AREVA T&D.

Stafford, 30-01-2009

Ben Caunce  
Automation Products Laboratories Director

Marcin Wycinka  
Test Engineer

<sup>1</sup> Level B – Tester with ISO 9000 or ISO 17025 Quality System



**Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.2**

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5, AssN6, Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv7, Srv8, Srv9, Srv10, SrvN1e, SrvN1f, SrvN3
2: Data Sets	Dset1, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop5, Gop6, Gop8, Gop9, GopN1, GopN2
9b: GOOSE subscribe	Gos1, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	Ctl7, CtlN11
12b: SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOs1, SBOs2	Ctl7, CtlN11
12c: Enhanced Direct control	CtlN3, CtlN8, DOes2, DOes5	Ctl7, CtlN11
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9, SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	