



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

No. 74104912-MOC/INC 13-3352

Issued to:  
GE Power Conversion  
Boughton Road  
Rugby, Warwickshire CV21 1BU  
United Kingdom

For the server product:  
T5500 RTU  
Software: Version 4.07, Revision 157  
Hardware: GE T5500 Processor



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 TPCL<sup>2</sup> version 1.7, the product's protocol, model and technical issue implementation conformance statements: "UK POWER NETWORKS T5500 IEC61850 Protocol Implementation Conformance Statement (PICS) rev 3", "UK POWER NETWORKS Flexible Plug and Play Model Implementation Conformance Statement T5500 IEC61850 Server rev 1" and "UK POWER NETWORKS Flexible Plug and Play Tissue Implementation Conformance Statement T5500 IEC61850 Server rev 1" and the extra information for testing: "UK POWER NETWORKS Flexible Plug and Play IEC61850 Protocol Extra Information for Testing (PIXIT) rev 4".

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 (16/24)	5 Unbuffered Reporting (15/19)
2 Data Sets (3/6)	6 Buffered Reporting (17/21)
2+ Data Set Definition (23/23)	13 Time Synchronization (4/5)

This certificate includes a summary of the test results as carried out at GE Power Conversion in The United Kingdom with UniCA 61850 Client simulator 4.27.03 with test suite 3.24.02 and UniCA 61850 Analyzer 5.27.06. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74104912-MOC/INC 13-3353 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by GE Power Conversion. The manufacturer's production process has not been assessed. This attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, September 26, 2013

M. Adriaansen  
Director Intelligent Networks & Communication

R. Schimmel  
Certification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System

<sup>2</sup> 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

<b>Conformance Block</b>	<b>Mandatory</b>	<b>Conditional</b>
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5  Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv8, SrvN1f
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9  DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12  RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14  BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, BrN6
13: Time sync	Tm1, Tm2, TmN1	Tm3