



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

No. 74104959-MOC/INC 13-3666

Issued to:  
GABO CO., LTD.  
380, Komo-ri  
Soheul-eup, Pocheon-si  
Kyungki-do, 487-821  
Korea

For the client system:  
GBPAS  
Version 3.0  
HP EliteBook 8570p with Windows 7  
Professional K



**The client system 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 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL<sup>2</sup> version 1.2 with client system's protocol, model and technical issue implementation conformance statements: "GABO GBPAS IEC 61850 Client V3.0 PICS", "GABO GBPAS IEC 61850 Client V3.0 MICS", "GABO GBPAS IEC 61850 Client V3.0 TICS" and product's extra information for testing: "GABO GBPAS IEC 61850 Client V3.0 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):

1	Basic Exchange (20/22)	12a	Direct Control (6/7)
2	Data Sets (5/9)	12b	SBO Control (8/9)
2+	Data Set Definition (4/4)	12c	Enhanced Direct Control (6/7)
4	Setting Group Selection (3/4)	12d	Enhanced SBO Control (8/9)
5	Unbuffered Reporting (16/18)	13	Time Synchronization (3/4)
6	Buffered Reporting (20/22)	14	File Transfer (5/8)

This certificate includes a summary of the test results as carried out at KERI in Korea with UniCA Multi IED Simulator version 3.27.02 and UniCA 61850 Analyzer version 5.27.07. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74104959-MOC/INC 13-3665 will prevail.

The test has been carried out on one single specimen of the client system as referred above and submitted to KEMA by GABO CO., LTD. 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, October 16, 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 Procedure Change List





Applicable Test Procedures from the UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDsN1a, cDsN1b
2+: Data Set Definition	cDs6, cDsN4	cDs7, cDsN5
4: Setting Group Selection	cSg2, cSgN1	cSg1
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRpN2, cRpN3, cRpN7, cRpN8	cRp1, cRp2, cRp6, cRp7, cRpN1, cRpN4
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr12, cBrN2, cBrN3, cBrN7, cBrN8, cBrN9	cBr1, cBr2, cBr6, cBr7, cBr13, cBrN1, cBrN4
12a: Direct control	cCtl4, cCtlN1 cDOs1, cDOs2	cCtl1, cCtl2
12b: SBO control	cCtl4, cCtlN1 cSBOs1, cSBOs2, cSBOs3	cCtl1, cCtl2 cSBOs4
12c: Enhanced Direct Control	cCtl4, cCtlN1 cDOes1, cDOes2	cCtl1, cCtl2
12d: Enhanced SBO control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2 cSBOes4
13: Time sync	cTm1	cTm2, cTmN1
14: File transfer	cFt1, cFt2, cFt3, cFtN1, cFtN2	