



IEC 61850 Certificate Level A¹

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No. 74102109-MOC/INC 12-01810

Issued to:
TOSHIBA Corporation
Power Systems Protection and Control
Fuchu Complex1, TOSHIBA-Cho
Fuchu-Shi, Tokyo, 183-8511
Japan

For the product:
GRD200
Main software: GS2RDIM1-01-00
IEC 61850 firmware: G2M850-1-E

Issued by:



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, the UCA International Users Group Device Test Procedures version 2.3 with TPCL² version 1.5, the product's protocol, model and technical issue implementation conformance statements: "IEC61850 ACSI Conformance Statement for G2 series IED, document 6F2S1874 version 0.4", "IEC61850 Model Implementation Conformance Statement (MICS) GRD200, document 6F2S1882 version 0.1", "IEC61850 Tissues conformance statement (TICS) of the IEC 61850 communication interface in G2 series IED, version 0.3" and the extra information for testing: "Protocol implementation extra information for testing (PIXIT) of the IEC 61850 communication interface in G2 series IED, document 6F2S1875 version 0.4".

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 (18/24)	12a	Direct Control (7/12)
2	Data Sets (3/6)	12b	SBO Control (9/14)
4	Setting Group Selection (3/3)	12c	Enhanced Direct Control (7/13)
5	Unbuffered Reporting (17/19)	12d	Enhanced SBO Control (12/19)
6	Buffered Reporting (19/21)	13	Time Synchronization (4/5)
9a	GOOSE Publish (8/13)	14	File Transfer (4/7)
9b	GOOSE Subscribe (10/11)		

This certificate includes a summary of the test results as carried out at Toshiba in Japan with UniCA 61850 Client simulator 3.25.02 with test suite 3.24.02 and UniCA 61850 Analyzer 4.25.00. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74102109-MOC/INC 12-01809 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by Toshiba. 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 3, 2012

M. Adriaensen
Director Intelligent Networks & Communication

R. Schimmel
Certification Manager

1 Level A - Independent test lab with certified ISO 9000 or ISO 17025 quality system
2 TPCL - Test procedures change list

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.5

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv7, SrvN1e, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a	Sg3
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12 RpN1, RpN2, RpN3, RpN4	Rp5, Rp6, Rp8, Rp9, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br6, Br10, Br11, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7, Gop10a	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8 DOns1, DOns3	Ctl2, Ctl7, CtlN11
12b: SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl2, Ctl7, CtlN11
12c: Enhanced Direct Control	CtlN3, CtlN8 DOes2, DOes5	Ctl2, Ctl7, CtlN11
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2, Ctl7, CtlN11
13: Time sync	Tm1, Tm2, TmN1	Tm3
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	