



International
Usersgroup

IEC 61850 Certificate Level A¹

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No. 74101544-MOC/INC 12-00680

Issued to:
TOSHIBA Corporation
Power Systems Protection and Control
Fuchu Complex 1, TOSHIBA-Cho,
Fuchu-shi, Tokyo, 183-8511
JAPAN

For the product:
GRL100
Main software: GS2LM1-02-C
IEC 61850 communication firmware:
G2M850-01-C

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: "IEC 61850 ACSI Conformance Statement for G2 series IED version 0.1", "IEC 61850 Model Implementation Conformance Statement (MICS) for GRL100 version 0.0" and "IEC 61850 Tissues Conformance Statement (TICS) of the IEC 61850 interface in G2 series IED version 0.1" and the extra information for testing: "IEC 61850 Protocol implementation extra information for testing (PIXIT) of the IEC 61850 interface in G2 series IED version 0.1".

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 (19/24)	9a	GOOSE Publish (8/13)
2	Data Sets (3/6)	9b	GOOSE Subscribe (10/11)
4	Setting Group Selection (3/3)	12d	Enhanced SBO Control (10/19)
5	Unbuffered Reporting (15/19)	13	Time Synchronization (4/5)
6	Buffered Reporting (17/21)	14	File Transfer (4/7)

This Certificate includes a summary of the test results as carried out at TOSHIBA Corporation in Japan with UniCA 61850 Client simulator version 3.23.02 with test suite version 3.24.00 and UniCA 61850 analyzer version 4.24.03. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74101544-MOC/INC 12-00679 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 Certificate does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, 11 April 2012

M. Adriaansen
Regional Director Management & Operations Consulting

R.S. Massink
Senior Test Engineer

1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System
2 TPCI = 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, Srv8, 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, Rp8, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, 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
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2
13: Time sync	Tm1, Tm2, TmN1	Tm3
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	

All configuration file and data model tests have been successfully performed for the product variants using the same hardware and software version: GRZ100.