Issued to:
Bitronics, LLC.
261 Brodhead Road
Bethlehem, PA 18017 USA

UCA International Users Group

For the product:
Bitronics M660
SCADA Measurement IED
Software Version 2.11.0
Hardware Version M3

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

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1
Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL[2] version 1.1 with product's protocol, model and technical issue implementation conformance statements: "(PICS) Section 2, Bitronics 60 Series IED IEC61850 Protocol Manual, ML0043", "(MICS) Section 3, Bitronics 60 Series IED IEC61850 Protocol Manual, ML0043", "(TICS) Section 4, Bitronics 60 Series IED IEC61850 Protocol Manual, ML0043" and extra information for testing "(PIXIT) Section 5, Bitronics 60 Series IED IEC61850 Protocol Manual, ML0043".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of tests):

1	Basic Exchange (18/26)	5	Unbuffered Reporting (19/20)
2	Data Sets (4/7)	6	Buffered Reporting (26/29)
		13	Time Synchronization (3/7)

This certificate includes a summary of the test results as carried out at ALSTOM's laboratories in Stafford, UK with UniCA 61850 client simulator version 4.29.03 with test suite Ed2 3.29.04 and the UniCA 61850 Analyzer version 5.28. This document has been issued for information purposes only, and the original paper copy of the ALSTOM report: No. 50745.6660.301 will prevail.

The tests have been carried out on one single specimen of the product as referred and submitted to ALSTOM GRID by Bitronics, LLC. The manufacturer's production process has not been assessed. This certificate does not imply Automation Products Laboratories at ALSTOM GRID UK has certified or approved any other product other than the specimen tested.

Stafford, 01-02-2016

Allen Millard
Automation Products Laboratories Manager

Hua Qin
Automation Products Laboratories
IED Communication Test Engineer

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1 Level B - Test lab at least following ISO 9001
2 Test Procedure Change List

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL version 1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv9, sSrvN1f
2: Data Sets	sDs1, sDs10a, sDs15, sDsN1ae	
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp9, Rp14, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp5, sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr9, sBr14, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr5, sBr6, sBr7, sBr8, sBr10, sBr11, sBr12
13: Time sync	sTm1, sTm2, sTmN1	

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