

Issued to:

Schneider Electric Industries SAS
35 rue Joseph Monier,
92500 Rueil -Malmaison, France

For the server product:

MiCOM P638
Transformer Differential Protection Device
Software version: 661 -250

The server product has not been shown 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 TPCL² 1.2.6 with product's protocol, model and technical issue implementation conformance statements: "MiCOM P638 Transformer Differential Protection Device for Railway Applications PICS Ed2, Version: PX638-661-250", "MiCOM P638 Transformer Differential Protection Device for Railway Applications MICS Ed2, Version: PX638-661-250", "Px3x TICS ED2, Version: TICS-Ed2-A.1" and product's extra information for testing: "Px3x PIXIT with control ED2, Version: PIXIT-Ed2-A.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 (22/26)	9a GOOSE Publish (10/13)
2 Data Sets (4/7)	9b GOOSE Subscribe (12/14)
4 Setting Group Selection (4/4)	12a Direct Control (9/18)
5 Unbuffered Reports (19/21)	12c Enhanced Direct Control (11/20)
6 Buffered Reports (28/30)	12d Enhanced SBO Control (17/28)
	13 Time Synchronization (4/7)
	14 File Transfer (5/8)

This Certificate includes a summary of the test results as carried out at Schneider Electric IEC61850 lab in China with UniCASim 61850 client simulator 4.31.02 with test suite v4.32.03 and UniCA Analyzer 5.31.00. This document has been issued for information purposes only, and the original paper copy of the Schneider Electric IEC61850 lab report: No. SchneiderElectric_MiCOM_P638-661-250_Ed2_RPT will prevail.


The test has been carried out on one single specimen of the product as referred above and submitted to Schneider Electric IEC61850 lab by Schneider Electric. The manufacturer's production process has not been assessed. This certificate does not imply that Schneider Electric IEC61850 lab has certified or approved any product other than the specimen tested

Shanghai, June 06, 2019



Zhutao Zhang
Testing Team Manager

Issued by:

Xiaohui Wang
IEC61850 Test Engineer

¹ Level B _ Tester lab with certified ISO 9001 Quality System

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 1.2.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv8, sSrv10, sSrv12, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp13, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12, sBr13, sBr23, sBr24
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11	sGop1, sGop5, sGop7, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl7, sCtl13, sCtl15, sCtl16, sCtl17
12c: Enhanced Direct control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl7, sCtl13, sCtl14, sCtl15, sCtl16, sCtl17, sCtl26
12d: Enhanced SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOe1, sSBOe2, sSBOes6, sSBOes8	sCtl4, sCtl6, sCtl7, sCtl15, sCtl16, sCtl17, sCtl26
13: Time sync	sTm1, sTm2, sTmN1	sTm3
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	