

# CENTRAL POWER RESEARCH INSTITUTE

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



No. UARC/SASL/C006/2014

**Issued to:**

M/s. ALSTOM T&D INDIA LTD.  
19/1, GST ROAD, PALLAVARAM,  
CHENNAI - 600043,  
INDIA.

**For the server product:**

ALSTOM MiCOM C264 BAY CONTROL UNIT  
Software Version: C264P Version-5.1.0  
Serial No.:33013576

Issued by: CENTRAL POWER RESEARCH INSTITUTE, India

The server product 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, the UCA International Users Group Device Test Procedures version 2.3 with Test Procedures Change List (TPCL) version 1.7.3, the product's protocol, model and technical issue implementation conformance statements: "PICS version DCS C264P Edition C", "MICS version DCS C264P Edition B", "TICS version DCS C264P Edition Z" and the extra information for testing: "PIXIT version DCS C264P Edition E".


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 (20/24)	12a Direct Control (6/12)
2 Data Sets (3/6)	12c Enhanced Direct Control(6/13)
5 UnBuffered Reporting (15/19)	12d Enhanced SBO Control(11/19)
6 Buffered Reporting (17/21)	13 Time Synchronization (3/5)
9a GOOSE Publish (9/13)	14 File Transfer(6/7)
9b GOOSE Subscribe(10/11)	


This Certificate includes a summary of the test results as carried out at CPRI, Bangalore, India with UniCAsim 61850 version 4.28.04 test system running test suit "61850 Conformance Test v3.27.00/ v3.27.04" and UniCA 61850 analyzer version 5.27.04. This document has been issued for information purposes only and the original paper copy of the CPRI Report No.: UARC/SASL/T006/2014; Dated:09-Dec-2014 will prevail.

The tests has been carried out on one single specimen of the products as referred above and submitted to CPRI by M/s. ALSTOM T&D INDIA LTD. 19/1, GST ROAD, PALLAVARAM, CHENNAI- 600043 INDIA. The manufacturer's production process has not been assessed. This Certificate does not imply that CPRI has certified or approved any product other than the specimen tested.

Bangalore, 09-Dec-2014

  
(V. Arunachalam)  
Additional Director




  
(Pradish M)  
Test Engineer

Report Reference No: UARC/SASL/T006/2014; Dated: 09-Dec-2014




Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.7.3

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5, Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3, Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN3
2: Data Set	Dset1, Dset10a, DsetN1ae	--
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12, RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, 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, Gop9, Gop10a	Gop1, Gop6, GopN1
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct Control	CtlN3, CtlN8, DOns1	Ctl7, CtlN11, DOns3
12c: Enhanced Direct Control	CtlN3, CtlN8, DOes2, DOes5	Ctl7, CtlN11
12d: Enhanced SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9, SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time Synchronization	Tm1, Tm2	TmN1
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c

  
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