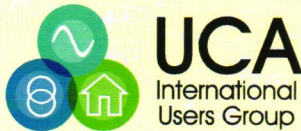


# CENTRAL POWER RESEARCH INSTITUTE

Prof. Sir CV Raman Road, PO Box 8066, Sadashivanagar PO,  
BANGALORE – 560 080. I N D I A



## IEC 61850 Certificate Level A



No.:MUADSASL1718C002

**Issued to:**

M/s. GE T&D INDIA LIMITED,  
19/1, G.S.T. Road, Pallavaram,  
Chennai - 600043  
Tamil Nadu, INDIA

**For the server product:**

Numerical Current Differential Protection Relay  
Type: MiCOM P546  
Hardware Version: P546 –M Hardware  
Software Version: 76  
Model No.: P54691AU6M0760M  
Serial No.: 33744493

**Issued by: CENTRAL POWER RESEARCH INSTITUTE, India**

**The server product has not been 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 Server Device Test Procedures version 3.04, the product's protocol, model and technical issue implementation conformance statements: "PICS version Px4x-EN-PC1-D", "MICS version P546-MC-EN-M76B", "TICS version P54x/EN TC/M" and the extra information for testing: "PIXIT version P54x-PX-EN-M76B".


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 (20/25)	12a Direct Control (5/11)
2 Data Sets (3/6)	12b SBO Control (7/14)
4 Setting Group Selection (3/3)	12c Enhanced Direct Control(6/13)
5 UnBuffered Reporting (16/18)	12d Enhanced SBO Control(10/19)
6 Buffered Reporting (23/27)	13 Time Synchronization (4/5)
9a GOOSE Publish (10/12)	14 File transfer (6/7)
9b GOOSE Subscribe(11/11)	


This Certificate includes a summary of the test results as carried out at CPRI, Bangalore in India with UniCAsim 61850 version 4.31.02 test system with test suit "61850 Conformance Test TP 3.03 v3.31.00" and UniCA 61850 analyzer version 5.31.00. This document has been issued for information purposes only and the original paper copy of the CPRI Report No.: MUADSASL1718T002; Dated: 14-Dec-2017 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. GE T&D India Limited, 19/1, G.S.T. Road, Pallavaram, Chennai - 600043, Tamil Nadu, 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, 14-Dec-2017

  
(V Shivakumar)  
Engineering Officer

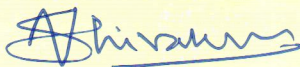


  
(Pradish M)  
Test Engineer

Report Reference No: MUADSASL1718T002; Dated: 14-Dec-2017

Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 3.04

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 Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a, Sg3	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br20, Br21, Br22, Br25, Br26, Br27, Br28 BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br5, Br8, Br10, Br11, Br12
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop5, Gop6, Gop7, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b, Gos4
12a: Direct control	CtlN3, DOns1	Ctl7, CtlN11 DOns3
12b: SBO control	CtlN1, CtlN2, CtlN3, CtlN4, SBOs2	Ctl7, CtlN11
12c: Enhanced Direct Control	CtlN3, DOes2, DOes5	Ctl7, CtlN8, CtlN11
12d: Enhanced SBO control	CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time sync	Tm1, Tm2	Tm3, TmN1
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c



(V Shivakumar)  
Engineering Officer




(Pradish M)  
Test Engineer

Report Reference No: MUADSASL1718T002; Dated: 14-Dec-2017