

CENTRAL POWER RESEARCH INSTITUTE

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BANGALORE – 560 080. I N D I A



IEC 61850 Certificate ^{Level A}



No. UARC/PL/C0035/2012

Issued to:

M/s. Pradeep Sales & Service
11 Star Ind.Estate, Near Sakina Tele. Exch.,
Kurla Anderi Rd.,
Mumbai-400072
India

For the product:

Tap Changer Control & Transformer Monitoring System
Type: FX8000A
Hardware Version: Rev 1.0
Software Version: GPC 2.19.16
Serial No.: FX-11066

Issued by: CENTRAL POWER RESEARCH INSTITUTE, India

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 with product's protocol, model and technical issue implementation conformance statements: "PICS version Rev 1.0", "MICS version Rev 1.0", "TICS version Rev 1.0" and products extra information for testing: "PIXIT for testing for Pradeep Sales & Service range of Protection IEDs version Rev 1.0".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases/total number of applicable test cases as defined in the UCA International Users Group Device Test procedures):

1 Basic Exchange (15/24)	9a GOOSE Publish (6/11)
2 Data Sets (3/6)	12a Direct Control (5/12)
5 UnBuffered Reporting (12/18)	12b SBO Control (7/16)
6 Buffered Reporting (14/20)	13 Time Synchronization (3/5)

This Certificate includes a summary of the test results as carried out at CPRI, Bangalore, India with UniCASim 61850 version 3.23.02 test system running test suit "61850 Conformance Test v3.23.00" and UniCASim 61850 analyzer version 4.24.02. The test is based on the UCA International Users Group Device Test Procedures version 2.2b. This document has been issued for information purposes only and the original paper copy of the CPRI report No.: UARC/PL/T0035/2012; Dated: 04-06-2012 will prevail.

The tests have been carried out on one single specimen of the products as referred above and submitted to CPRI by M/s. Pradeep Sales & Service, 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, 04-06-2012

(Pradish M)
Test Engineer



(V. Arunachalam)
Additional Director

Report Reference No: UARC/PL/T0035/2012; Dated: 04-06-2012

Applicable Test Cases:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5, Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv8
2: Data Sets	Dset1, Dset10a, DsetN1ae	--
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, RpN1, RpN2, RpN3, RpN4	Rp8, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, BrN1, BrN2, BrN3, BrN4, BrN5	Br10
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop7	Gop1, GopN1
12a: Direct Control	CtlN3, CtlN8, Dons1, Dons3	Ctl2
12b: SBO Control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOs2	Ctl2
13: Time Synchronization	Tm1, Tm2, TmN1	--



(Pradish M)
Test Engineer




(V. Arunachalam)
Additional Director

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