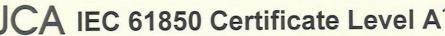


CENTRAL POWER RESEARCH INSTITUTE



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





1 Perfect 1900 CETO 1900

No.: CPRIBLRSGRL24TC0004

Issued to:

M/s. GE T&D India Ltd., 19/1 G.S.T Road, Pallavaram, Chennai – 600 043, Tamil Nadu, INDIA.

For the server product:

Single and Dual CB Feeder and Auto Reclose IED

Type.: Micom P40 Agile 5th Gen P84 Model No: P84193RGAVBAA0Q

Serial No.: 36339515 Hardware Version: Q Software Version: AAN

Issued by: CENTRAL POWER RESEARCH INSTITUTE, India

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "PICS Version Px4x-PC2-EN-J; dated: 16 January 2023", "MICS Version P841B-MC2-EN-AA-1; dated: 18 November 2022", "TICS Version P841-TC2-EN-1; dated: 07 November 2022" and product's extrainformation for testing: "PIXIT Version P84-Px2-EN-1; dated: 01 August 2023".

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

- 1 Basic Exchange (24/26)
- 2 Data Sets (4/7)
- 4 Setting Group Selection (4/4)
- 5 Unbuffered Reporting (21/23)
- 6 Buffered Reporting (31/33)
- 9a GOOSE Publish (12/13)
- 9b GOOSE subscribe (21/21)

- 12a Direct control (8/18)
- 12b SBO control (14/27)
- 12c Enhanced Direct Control (10/20)
- 12d Enhanced SBO control (15/28)
- 13 Time sync (4/7)
- 14 File transfer (7/8)

This Certificate includes a summary of the test results as carried out at Central Power Research Institute (CPRI), Bangalore in India with Client Simulator UniGrid SA Simulator version 2.2.1 with test suit version Ed2TP2.0.6_Ed2.1TP1.2_v2.2.1 and UniCA 61850 analyzer version 6.45.2.0. This document has been issued for information purposes only, and the original paper copy of the CPRI report No.: CPRIBLRSGRL24T0004; dated: 07 March, 2024 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to CPRI by M/s. GE T&D India Ltd., 19/1 G.S.T Road, Pallavaram, Chennai – 600 043, 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; 07 March, 2024

(Dr. Amit Jain)
Additional Director

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(Pradish M)
Test Engineer

¹ Level A – Independent Test lab with certified ISO/IEC 17025 Quality System. UCA International Users Group, P.O. Box 315, Shell Knob, MO 65747, USA







No.: CPRIBLRSGRL24TC0004

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv6, sSrv9, sSrv10, sSrv12, sSrv13, sSrvN1e, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
5: Únbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp13, sRp15 sRp17, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12, sBr13, sBr15, sBr17, sBr23, sBr24
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop5, sGop6, sGopN1, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos4, sGos6b, sGos13
12a Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl7, sCtl13, sCtl15, sCtl16
12b SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6	sCtl6, sCtl7, sCtl15, sCtl16, sCtl27
12c Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl7, sCtl13, sCtl14, sCtl15, sCtl16, sCtl26
12d Enhanced SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl6, sCtl7, sCtl15, sCtl16, sCtl26
13 Time sync	sTm1, sTm2, sTmN1	sTm3
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	SFt2c, sFtN1c

(Dr. Amit Jain)

(Dr. Amit Jain)
Additional Director

(Pradish M)
Test Engineer

