



GE VERNOVA

MiCOM P40 Agile

P14D, P14N, P94V

Version History
Feeder Management IED

Hardware Version: A
Software Version: Up to 70
Publication Reference: P40Agile-VH-EN-14



1 HARDWARE AND SOFTWARE VERSION HISTORY

S/W Version Major	S/W Version Minor	H/W Version	Original Date of Issue	Description of Changes	Technical Documentation
50	H	A	April 2013	<ul style="list-style-type: none"> ▪ Original Issue ▪ Fix for Error/Lockout 7104:2000/reboot ▪ IEC 61850 - Connection/Disconnection issues ▪ DNP3oe Versions - Courier Tunnelling does not work (AGP140-46) ▪ Ethernet application (IEC61850 + DNP3oe) crashes if a Courier tunnel is continuously opened/closed ▪ Object 0 variations: 219, 222, 245 and 247 are incorrect ▪ QNX kernel can delay user threads for up to 10ms ▪ IEC61850 Select Before Operate Incorrect Behaviour ▪ With e-terra SCADA system, the P40 Agile data model extraction stops at Measurements/PriFouMMXU1\$CF ▪ Unextracted events are lost on RP1, following relay reboot, using a DNPOE build ▪ Incorrect response to Object 2 Variation 3 request for Binary Input Event with Relative Time ▪ IEEE Floats are wrong at MODBUS interface ▪ Downloading a settings file reverts settings temporarily to setting group 1 ▪ P94V operation on UF ▪ DNP3OE Versions - Command management during IED disconnection/connection ▪ CB Fail trip may fail to operate under faults with DC transient offsets ▪ IEC 61850 Client disassociation while reading P10GGIO1\$CO block in P14D IEDs ▪ IEC61850 Measurements negative values rounding error ▪ Agile latch reset when setting group is changed ▪ Undervoltage programmable curve not using standard template used by other Px4x relays ▪ The VCO Status, cell [3582], for the Voltage Controlled Overcurrent isn't updated after a change. The change takes effect after a power cycle or change to V Dep OC V<1 Set ▪ ISEF, IEF and anything related are not scaled properly when the CT ratio is 5A ▪ EF directional function failed to trip ▪ Fix for P14DH 53A IEC61850-8-1 Level B Conformance Issue 	TG8612C
50	J	A	June 2015	<ul style="list-style-type: none"> ▪ DNPoE Application stops running after many days of Polling ▪ DNPOE: After multiple DI and AI events at the same time, the relay Ethernet board seems locked ▪ FA Steady Fault - Incorrect Assertion ▪ P14DZ HIF Function asserting incorrectly (CHA HIF) ▪ Incorrect Burst Count - HIF Detection ▪ High Impedance Fault maloperation ▪ HIF CHA Hysteresis is not correctly set 	P14D-B/G/L/Z-TM-EN-1 P14N-B/Z-TM-EN-1 P94V-B/P-TM-EN-1
50	K	A	April 2016		

S/W Version Major	S/W Version Minor	H/W Version	Original Date of Issue	Description of Changes	Technical Documentation
50	K	A	April 2016	<ul style="list-style-type: none"> HIF Burst Threshold is not reset after the adaptive threshold is disabled 	
50	L	A	April 2017	<ul style="list-style-type: none"> Permanent ethernet communication loss in P40 Agile relays Maintenance record generated every time Gateway is configured in DNP configuration CS1 and CS2 does not work independently when CB Comp enabled for CS2 	
50	M	A	March 2018	<ul style="list-style-type: none"> Flash change due to obsolescence 	
51	A	A	September 2013	<ul style="list-style-type: none"> Ethernet Enhancements for the P94V New model P14DA Neutral Admittance Protection for the P14DL and P14DZ Selectable Measured/Derived NVD Undervoltage programmable curve not using standard template used by other Px4x relays With e-terra SCADA system, the P40 Agile data model extraction stops at Measurements/PriFouMMXU1\$CF When using SBOs control model for the data 'Control/XCBR1\$CO\$Lock' and both Check Conditions are set the Agile relay is dropping the connection to the client DNP ALSTOM rebranding in dnpev_devattr.h Unextracted events are lost on RP1, following relay reboot, using a DNPoE build Incorrect response to Object 2 Variation 3 request for Binary Input Event with Relative Time ISEF, IEF and anything related are not scaled properly when the CT ratio is 5A IEEE Floats are wrong at MODBUS interface Ethernet application (IEC61850 + DNP3oE) stops running if a Courier tunnel is continuously opened/closed (as done by S1 Agile Measurements viewer) 	<p>P14D-TM-EN-1 P14N-TM-EN-1 P94V-TM-EN-1</p>
51	B	A	November 2013	<ul style="list-style-type: none"> EF directional function fail to trip The VCO Status, cell [3582], for the Voltage Controlled Overcurrent isn't updated after a change. The change takes effect after a power cycle or change to V Dep Object 0 variations: 219, 222, 245 & 247 are incorrect 	<p>P14D-TM-EN-1 P14N-TM-EN-1 P94V-TM-EN-1</p>
51	C	A	June 2014	<ul style="list-style-type: none"> PWM duty cycle change for opto input drive circuit 	
51	D	A	March 2018	<ul style="list-style-type: none"> Flash change due to obsolescence 	
52	B	A	November 2013	<ul style="list-style-type: none"> Chinese HMI added The DDB 1599-1798 display "PSL internal 001-200", but DDB 923-1022 still display "PSL internal 001- 100". Have duplicate content The VCO Status isn't updated after a change. The edited change does take effect after a power-cycle or a change to "V Dep OC V<1 Set" cell 3583 Object 0 variations: 219, 222, 245 and 247 are incorrect 	<p>P14D-TM-EN-1 P14N-TM-EN-1 P94V-TM-EN-1</p>
52	C	A	March 2018	<ul style="list-style-type: none"> Flash change due to obsolescence 	
53	A	A	April 2014	<ul style="list-style-type: none"> Add P14DH variant with Wattmetric Directional Earthfault protection The .lng files generated by building and the .LNG files used by S1 Agile are inconsistent Incorrect Russian translations for DDB_CONTROL_TRIP & DDB_CONTROL_CLOSE 	<p>P14D-TM-EN-3 P14N-TM-EN-3 P94V-TM-EN-3</p>

S/W Version Major	S/W Version Minor	H/W Version	Original Date of Issue	Description of Changes	Technical Documentation
53	A	A	April 2014	<ul style="list-style-type: none"> ▪ Fix for P14DH 53A IEC61850-8-1 Level B Conformance Issue ▪ Inconsistent language text strings between P40Agile and P14x 	P14D-TM-EN-3 P14N-TM-EN-3 P94V-TM-EN-3
53	B	A	April 2014	<ul style="list-style-type: none"> ▪ CB Fail trip may fail to operate under faults with DC transient offsets ▪ Integrate new FPGA version 	P14D-TM-EN-3 P14N-TM-EN-3 P94V-TM-EN-3
53	C	A	April 2014	<ul style="list-style-type: none"> ▪ Fix for Error/Lockout 7104:2000/reboot ▪ The LCD display year is 2080 but in the disturbance and event records it is 1980 ▪ Using S1 Agile changing values to the Voltage Transformer does not change the corresponding values in Residual O/V NVD column ▪ Line length mismatch between value sent from S1 Agile and the value received in the relay ▪ DNP3oE Setting Files - GoEna is visible ▪ Values under High impedance menu do not show values in primary when relay is set to primary in S1 	P14D-TM-EN-3 P14N-TM-EN-3 P94V-TM-EN-3
53	D	A	August 2015	<ul style="list-style-type: none"> ▪ Very sharp pick current level lead relay tripping on IREF 	
53	E	A	April 2017	<ul style="list-style-type: none"> ▪ IEC 61850 - Connection/Disconnection issues ▪ DNP3oE Versions - Courier Tunnelling does not work ▪ DNPOE: After multiple DI and AI events at the same time, the relay Ethernet board seems locked ▪ DNPoE Application stops running after many days of Polling ▪ Permanent ethernet communication loss in P40 Agile relays ▪ TCP disrupts after around 206 days of continuous use ▪ P14DZ HiZ Function asserting incorrectly (CHA HIF) ▪ Incorrect Burst Count - HIF Detection ▪ HiF FA Steady Fault - Incorrect Assertion ▪ HiF CHA Hysteresis is not correctly set ▪ HiF Burst Threshold is not reset after the adaptive threshold is disabled ▪ Maintenance Record generated everytime Gateway is configured in DNP configuration ▪ CS1 and CS2 does not work independently when CB Comp enabled for CS2 	
53	F	A	April 2018	<ul style="list-style-type: none"> ▪ Flash change due to obsolescence 	
54	A	A	December 2014	<ul style="list-style-type: none"> ▪ New opto threshold for Russian requirement ▪ New reduced I/O option (3I/4O in 20TE and 6I/8O in 30TE) ▪ IEC 61850 client disassociation while reading PLoGGIO1\$CO block in P14D IEDs ▪ IEC 61850 incorrect Courier cell mapping to TotWh and TotVarh in MMTR LNs ▪ IEC61850 measurements negative values rounding error 	P14D-TM-EN-4.1 P14N-TM-EN-4.1 P94V-TM-EN-4.1

S/W Version Major	S/W Version Minor	H/W Version	Original Date of Issue	Description of Changes	Technical Documentation
54	B	A	April 2015	<ul style="list-style-type: none"> ▪ Agile Relay failure: Error/Lockout 7104:2000/reboot ▪ The LCD display year is 2080 but in the disturbance and event records it is 1980 ▪ Using S1 Agile changing values to the Voltage Transformer does not change the corresponding values in Residual ▪ OV NVD column ▪ Line length mismatch between value sent from S1 Agile and the value received in the relay ▪ DNP3oE Setting Files - GoEna is visible ▪ Values under high impedance menu do not show values in primary when relay is set to primary in S1 	<p>P14D-TM-EN-4.1 P14N-TM-EN-4.1 P94V-TM-EN-4.1</p>
54	C	A	April 2017	<ul style="list-style-type: none"> ▪ IEC 61850 - Connection/Disconnection issues ▪ DNP3oE Versions - Courier Tunneling does not work ▪ DNPOE: After multiple DI and AI events at the same time, the relay Ethernet board seems locked ▪ Permanent Ethernet communication loss in P40 Agile relays ▪ TCP disrupts after around 206 days of continuous use ▪ P14DZ HIZ Function asserting incorrectly (CHA HIF) ▪ Incorrect Burst Count - HIF Detection ▪ FA Steady Fault - Incorrect Assertion ▪ HIF CHA Hysteresis is not correctly set ▪ HIF Burst Threshold is not reset after the adaptive threshold is disabled ▪ Maintenance Record generated every time Gateway is configured in DNP configuration 	
54	D	A	April 2018	<ul style="list-style-type: none"> ▪ Flash change due to obsolescence 	
55	A	A	November 2015	<ul style="list-style-type: none"> ▪ CS1 and CS2 does not work independently when CB Comp enabled for CS2 ▪ To retrofit legacy products KAVR100, KAVS and KVTR ▪ Pin to pin retrofit solution for KMPC130 ▪ Compliance to CEI 0-16 requirements in P14D/P94V ▪ New communication protocol options - 1) IEC61850 over Ethernet + MODBUS via RS485, 2) IEC 61850 over Ethernet + DNP3.0 via RS485 ▪ Settable k factor in Thermal overload ▪ Fault locator setting improvements ▪ Earth Fault (EF1) setting 10mA minimum threshold ▪ DNP3.0 Unsolicited message reporting ▪ PSL timer setting ▪ New extra shorting link ordering option – for capacitor cone NVD application & alarm on IED removal ▪ Compliance to Russian Rosseti requirements ▪ NCIT column visibility incorrect. ▪ Write 'AAAA' into cell 0x0002 failed with a reply code 05(CS103_GRC_SETTING_OUT_OF_RANGE) ▪ Generated MICS document for IEC 61850 protocol contains 'IEC61850' instead of 'IEC 61850'. 	<p>P14D-TM-EN-5 P14N-TM-EN-5 P94V-TM-EN-5</p>

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55	A	A	November 2015	<ul style="list-style-type: none"> ▪ Status report over IEC61850 not in line with DDB signals ▪ actVal Data Attribute now finalised as INT32 requirement in SCL (Edition 1 Only) ▪ Values under High impedance menu do not show values in primary when relay is set to primary in S1 ▪ Pending Reports when BufTm>0? Ed1 ▪ Agile latch reset when setting group is changed ▪ Connection/Disconnection issues ▪ Class 0 should be configurable to select either Counter or corresponding Frozen Counter ▪ DNP3oE Versions - Courier Tunnelling does not work ▪ For DNPOE build, the frozen counter always keeps the same value with the static counter without accepting a Freeze command ▪ The behaviour of frozen counter is different between DNP3 and DNPOE before the freeze command is sent ▪ DNPOE: After multiple DI and AI events at the same time, the relay Ethernet board seems locked ▪ IEC 61850 Interoperability problem when a client writes to any/all unsupported Trigger Options ▪ ICD file corrections ▪ 8.333Hz is displayed in the first generated Fault Record after relay reboot ▪ Underfrequency function enhancements and fixes ▪ SecRmsMMXU1 showing values in primary, not secondary ▪ IEC 61850: incorrect Courier cell mapping to TotWh and TotVArh in MMTR LNs ▪ CB Fail trip may fail to operate under faults with DC transient offsets ▪ "FUNCTION KEYS" column is visible for 20TE devices in P14 Agile data model ▪ Default GOOSE "Min Cycle Time" is wrong ▪ Visibility of setting ">1 TMS" and ">1 Time Dial" is wrong in Group 2 ▪ EPATR-B curve ▪ High Impedance Fault issue ▪ DNP3OE Versions - Command management during IED disconnection/connection ▪ Freq Avg Cycles & df/dt Avg Cycles should use power cycle instead of PCON calls cycles ▪ The unit of Records/RFO1/CF/FitDiskm is incorrect ▪ Very sharp pick current level lead relay tripping on IREF ▪ The error message "Runtime Error C991:3011" appears on P14N relay when viewing the cells in overcurrent column from HMI ▪ Column [4E00] PSL TIMERS is invisible from relay ▪ Default Setting of Relay is in-consistent to Look & Feel ▪ P94VR Look & Feel consistency check issues via courier interface ▪ "Ethernet failover" option displays in IED Configurator ▪ New settings Moving average cells ([42 41] -> [42 2D]) are not working in MODBUS ▪ When downloading firmware to the P14DZ relay and power cycling, error message - "Runtime Error 2e0b:0101" appears and relay reboots 	<p>P14D-TM-EN-5 P14N-TM-EN-5 P94V-TM-EN-5</p>

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55	A	A	November 2015	<ul style="list-style-type: none"> ▪ Language translations of all new DDBs and settings are in English apart from French ▪ The display of the cell [034-1][0345][0347][0343] misses a sign minus on MODBUS protocol, and the value of new adding cells can't be taken ▪ SecAvgMSTA.Volts4.rang.max.f is not configurable ▪ The IEC61850 communication disconnect when BRCB with special configuration is Enabled ▪ Trip elements 5 is missing in fault record of DNP protocol ▪ CTS operations when [4609] CTS VN< Inhibit is not satisfied ▪ Command "Reset Total Autoreclosures" is missing for P94VR DNP Object 10 ▪ DNP Binary Input 42 and Binary Input 299 could not be set when DDB 167 "UV Block" is ON ▪ Wrong DDB mapping for DA VtpAvgPTOV2.Str.PhsC ▪ When browsing Fault Record from HMI, Avg O/V Start operates unexpectedly when AVG OVER VOLT protection is disabled ▪ FUN number should be 164 instead of 162 for DDB #549 "dv/dt2 StartA/AB" in L&F "IEC60870-5-103" spread sheet ▪ MODBUS address of all DDBs in "Alarm status 2" and "Alarm status 3" are incorrect ▪ Menu text errors in 55A version ▪ Look & Feel Start Elements, Trip Elements available options, "Fault Record" spread sheet need update ▪ Data Group MODBUS missing, MODBUS Number of steps shift from cell [420D] V<3 Function to [4211] V<3 Poledead Inh in Look & Feel ▪ Max value 10Hz could not be set to cells f+Df/Dt x Dfreq(x=1 to 9) via MODBUS protocol ▪ The mapping "Measurements/SecMSTA1\$MX\$AvVAr3\$mag\$" was wrong, mapping corrected to the cell [0342]("+3Ph VAr Fix Dem") ▪ The new Average voltage protections keep running even if 091D is disabled ▪ FAULT RECORD Start CN and Trip CN are missing from UI when two stages of average voltage protections are both enabled in case of three phase faults ▪ BRCB - Wrong response when client sets an unknow EntryID value before enable it ▪ DO sequence error in ICD file ▪ MODBUS Start, Data Group MODBUS, MODBUS Number of steps, MODBUS registers are incorrect for Frequency Protection Stage 9 cells in L&F ▪ In Unsolicited mode, the measured unsolicited response time is 5s greater than the setting [1B 04] - "Unso Response" value ▪ The cell text of these cells [4201][4220][4240][4250] are not consistent with look&feel file ▪ The cell [30 11] Dir Char Setting exist in P94VR ▪ MODBUS address error in L&F for cell [03 28] ~ [03 2D] ▪ Missing translation for DDB (ordinal:1799-1842) in Look & Feel file ▪ The "ASDU Type" in "Fault Record" that's extracted by Px40VDEW is not consistent with look & feel file ▪ The format of Build Date&Time is not correct 	<p>P14D-TM-EN-5 P14N-TM-EN-5 P94V-TM-EN-5</p>

S/W Version Major	S/W Version Minor	H/W Version	Original Date of Issue	Description of Changes	Technical Documentation
55	B	A	October 2016	<ul style="list-style-type: none"> ▪ The values of DDBs (1717~1720) read via IEC61850 cannot be updated after downloading the new PSL ▪ The fault record can't be extracted via CS103 protocol if the previous fault record terminated by "Reset CU" ▪ DNPoE Application crash after many days of Polling ▪ Ethernet communication loss in P40 Agile relays ▪ After enabling the BRCB, the first integrity report comes out around 10s when the integrity time is set to be 3s under certain pre-steps ▪ Incorrect Burst Count - HIF Detection ▪ FA Steady Fault - Incorrect Assertion ▪ HIF CHA Hysteresis is not correctly set ▪ HIF Burst Threshold is not reset after the adaptive threshold is disabled ▪ Flash change due to obsolescence 	
55	C	A	April 2018	<ul style="list-style-type: none"> ▪ PRP/HSR/FailOver redundancy (new hardware boards) Configurable Fail-over in DNP3 ▪ DDB 781/782 doesn't show the real status when the alarm "Port A Link Fail" or "Port B Link Fail" show in HMI ▪ The status of DDB 783 is "OFF" issue 	P14D-TM-EN-6.1 P14N-TM-EN-6.1 P94V-TM-EN-6.1
56	B	A	October 2016	<ul style="list-style-type: none"> ▪ Ethernet communication lost after some time when deadbands for reporting set very small ▪ Maintenance record generated every time gateway is configured in DNP3.0 configuration ▪ CS1 and CS2 does not work independently when CB Comp enabled for CS2 	
56	C	A	June 2017	<ul style="list-style-type: none"> ▪ HiF Function enhancements ▪ DNP3oE enhancements 	
56	D	A	March 2018	<ul style="list-style-type: none"> ▪ Flash change due to obsolescence 	
57	A	A	May 2015	<ul style="list-style-type: none"> ▪ RSTP redundancy (new hardware boards) ▪ PCCN/Electre features ▪ Enhancements for Italy CEI 0-16 ▪ Fix for DNP3 memory leak ▪ The values of DDBs (1717~1720) read via IEC61850 cannot be updated after downloading the new PSL ▪ The fault record can't be extracted via CS103 protocol if the previous fault record terminated by "Reset CU" ▪ DNP Over Ethernet Application stops running after many days of Polling ▪ DDB #146 "Prot'n Disabled" events are read as "test mode" via CS103 protocol. ▪ The new under voltage Average voltage protections doesn't use POLEDEAD similar to the standard under voltage ▪ Ext AR SEF Trip could not block AR when [493F] SEF Ext Prot is set to "Block AR". ▪ The VTS Fast Block cannot block the AVG undervoltage;AVG overvoltage;AVG ZERO SEQ O/V;AVG POS SEQ O/V and AVG NEG SEQ O/V 	P14D-TM-EN-7 P14N-TM-EN-7 P94V-TM-EN-7

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57	A	A	May 2015	<ul style="list-style-type: none"> ▪ DDB #167 UV Block should not be visible on P14DA ▪ After enabling the BRBC, the first integrity report comes out around 10s when the integrity time is set to be 3s under certain pre-steps ▪ IEC 61850 client sets unsupported TrgOps must have response+ (Tissue 780) ▪ Incorrect Burst Count - HIF Detection ▪ FA Steady Fault - Incorrect Assertion ▪ HIF CHA Hysteresis is not correctly set ▪ HIF Burst Threshold is not reset after the adaptive threshold is disabled ▪ Ethernet communication loss in P40 Agile relays ▪ Maintenance Record Generated every time Gateway is configured in DNP configuration ▪ Flash change due to obsolescence 	P14D-TM-EN-7 P14N-TM-EN-7 P94V-TM-EN-7
57	B	A	April 2017	<ul style="list-style-type: none"> ▪ Ethernet communication loss in P40 Agile relays ▪ Maintenance Record Generated every time Gateway is configured in DNP configuration ▪ Flash change due to obsolescence 	
57	C	A	March 2018	<ul style="list-style-type: none"> ▪ CLONE - CS1 and CS2 does not work independently when CB Comp enabled for CS2 ▪ Voltage vector shift ▪ Switch Status and control ▪ IEC61850 Fault Records ▪ Code Review Report - Bad task priority change in DSP DTC transmit task ▪ Permanent ethernet communication loss in P40 Agile relays ▪ DDB #146 ""Prot'n Disabled"" events are read as ""test mode"" via CS103 protocol ▪ No events read from CS103 protocol for DDB #441 ""Test Mode"", DDB #771 ""GOOSE IED Absent"", DDB #780 ▪ ""IP Addr Conflict"", DDB #1200 ""Monitor bit 1"" to DDB #1207 ""Monitor bit 8"" ▪ RSTP is non-responsive at 10Mbps ▪ Output relay RL1 contact does not persist on P14DH model after reboot ▪ Flash change due to obsolescence 	P14D-TM-EN-8 P14N-TM-EN-8 P94V-TM-EN-8
60	B	A	March 2018	<ul style="list-style-type: none"> ▪ Flash change due to obsolescence 	
61	A	A	April 2017	<ul style="list-style-type: none"> ▪ Introduction of 40TE models ▪ TEFD new algorithm ▪ Vn input implementation change ▪ New In RMS measurement ▪ 64 Virtual Inputs ▪ Editable user alarms ▪ Maintenance Record Generated Every time Gateway is configured in DNP configuration ▪ CS1 and CS2 does not work independently when CB Comp enabled for CS2 	P14D-TM-EN-9
61	B	A	November 2017	<ul style="list-style-type: none"> ▪ P40 Agile Motor release ▪ Fix for SEF Directional protection working when multiple stages activated 	P14D-TM-EN-9 P14N-TM-EN-9 P94V-TM-EN-9 P24xM-TM-EN-1
61	C	A	March 2018	<ul style="list-style-type: none"> ▪ Flash change due to obsolescence 	

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61	D	A	February 2019	<ul style="list-style-type: none"> ▪ DDR clock synchronization activation ▪ Fix for communication loss in DNPoE ▪ Fix for IEC103 communication stops and relay reboot ▪ Fix for DNP3 memory leak 	
61	F	A	August 2022	<ul style="list-style-type: none"> ▪ NAND Flash change due to obsolescence ▪ Fix for Cyber security vulnerability on TMW Library for DNP3.0 ▪ Fix for P14DL- Out of Service flag Set in RP1 Courier Communication when Relay is Healthy ▪ Fix for Cold Load Pick-up when enabled, it's blocking "inhibiting" PWH ▪ Fix for Events corruption involving S1 Agile crash when trying to extract events ▪ Fix for corrupted RSTP FPGA bin file replaced with the correct one ▪ Fix for DNPoE counters issue ▪ Fix for IRIG-B status: DNP3 Data point not updating & relay Event Missing for "No Signal" ▪ Fix for issue when self-test routine detects an internal power failure, a restart happens and output relays will be Disabled 	
61	G	A	October 2024	<ul style="list-style-type: none"> ▪ Fix for issue where protection fails to operate contacts, Ethernet communications is stopped and frequency keeps changing. A reboot clears issue 	
62	A	A	September 2018	<ul style="list-style-type: none"> ▪ Concurrent Ethernet protocol support: IEC61850 and DNPoE in Feeder and Motor models ▪ Fix for unexpected behaviour when 103 communication is active and a protection function is triggered ▪ Fix for DNP3 memory leak 	P14D-TM-EN-10.1 P14N-TM-EN-10.1 P94V-TM-EN-10.1 P24xM-TM-EN-2
62	B	A	February 2019	<ul style="list-style-type: none"> ▪ DDR clock synchronization activation 	
62	C	A	April 2019	<ul style="list-style-type: none"> ▪ Fix for overfrequency element - Maloperation with normal frequency when specific harmonics are present ▪ Fix for frequency protection element - zero crossing algorithm weakness 	
62	D	A	October 2019	<ul style="list-style-type: none"> ▪ Fix for reboots/lockouts caused by I/O maintenance records ▪ Fix for DNP3.0 Communication: When sending an Assign Class request immediately followed by a Class poll relay reboots 	P14D-TM-EN-10.2 P14N-TM-EN-10.2 P94V-TM-EN-10.2
62	F	A	January 2021	<ul style="list-style-type: none"> ▪ Enhancement: All models updated to meet new IEC61850 Ed1 certification requirements ▪ Fix for manual reset latches causing logic to remain high after power cycle ▪ Fix for IRIG-B status: DNP3 Data point not updating & relay Event Missing for "No Signal" ▪ When self-test routine detects an internal power failure, a restart happens and output relays will be disabled-fixed ▪ Fix for Events corruption involving S1 Agile crash when trying to extract events ▪ Fix for corrupted RSTP FPGA bin file replaced with the correct one ▪ Fix for DNPoE counters issue ▪ IEC61850 stack resized (was producing errors 0x0B0903BB & 0xFFFF2) 	

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62	G	A	January 2022	<ul style="list-style-type: none"> ▪ Fix for Cyber security vulnerability on TMW Library for DNP3.0 ▪ Fix for P14DL- Out of Service flag Set in RP1 Courier Communication when Relay is Healthy ▪ Fix for Cold Load Pick-up when enabled, it's blocking "inhibiting" PWH ▪ NAND Flash change due to obsolescence 	
64	A	A	October 21	<ul style="list-style-type: none"> ▪ Enhancement: PTP Time synchronization support ▪ Enhancement: Max fault current data in fault records ▪ Enhancement: PWH In derived option ▪ Enhancement: SNTP fail alarm in Alarms and IEC61850 ▪ Enhancement: Adding password level control for HMI default screens ▪ Goose enhancement & optimized Goose configuration ▪ Improvement in DT timer hysteresis behaviour 	P14D-TM-EN-12 P14N-TM-EN-12 P94V-TM-EN-12 P24xM-TM-EN-2.1
64	A	A	October 21	<ul style="list-style-type: none"> ▪ Fix for Low impedance REF tripping incorrectly ▪ Fix for Cold Load Pick-up when enabled, it's blocking "inhibiting" PWH ▪ Fix for DNPOE communication which fails when Counter points are configured ▪ Fix for Cyber security vulnerability on TMW Library for DNP3.0 	P14D-TM-EN-12 P14N-TM-EN-12 P94V-TM-EN-12 P24xM-TM-EN-2.1
64	B	A	January 22	<ul style="list-style-type: none"> ▪ NAND Flash change due to obsolescence 	
70	B	A	March 2021	<ul style="list-style-type: none"> ▪ Enhancement: P14DL compliance with IEC61850 Ed2 for 2 communication protocols: 61850 & 61850 + IEC103 ▪ Enhancement: RcdMade as Transient data point ▪ Fix for manual reset latches cause logic to remain high after power cycle ▪ Fix for incorrect values reported to MODBUS Master Station ▪ Fix for Low impedance REF trips incorrectly when phase CT saturates heavily ▪ Fix for GOOSE schemes which do not work with more than 32 APPID 	P14DEd2-TM-EN-11
70	C	A	June 2023	<ul style="list-style-type: none"> ▪ Enhancement: P14NB and P94VR compliance with IEC61850 Ed2 for 2 communication protocols: 61850 & 61850 + IEC103 ▪ Enhancement: Additional communication option support in P14DL model ▪ New NAND Flash driver due to obsolescence ▪ Fix for IRIG-B status not updating correctly in DNP3.0 ▪ Fix for DNPOE communication, which fails when counter points are configured ▪ Fix for Out of Service flag Set in RP1 Courier Communication when Relay is Healthy ▪ Fix for RSTP communication issues ▪ Fix for relay reboot caused while modifying UI settings 	P14DEd2-TM-EN-11.2 P14NEd2-TM-EN-13 P94VEd2-TM-EN-13



GE VERNOVA

Imagination at work

GE Vernova
St Leonards Building
Redhill Business Park
Stafford, ST16 1WT, UK
+44 (0) 1785 250 070
contact.centre@ge.com

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