RELEASEnotes

SOMAT XR

July 2017
Version 1.18.1

Thank you for choosing HBM for your test, analysis and measurement task. This document shows the released product package of SomatXR. Please always check whether an updated version is available at: http://www.hbm.com. Please note that the firmware has been optimized. We recommend installing the latest firmware on all existing modules.

What's new?

Modules / Firmware

- **Firmware**
  - CX23-R Firmware Version 1.18.1 (Build 3569)
  - MX Module Firmware Version 4.10.4.0
    - Included in CX23-R firmware to update from the Web Interface.
- **Module Support**
  - No changes

Software Tools / Libraries

- **Software Updates**
  - SomatXR Emulator v1.18.1

Documentation

- **New Documentation**
  - None
- **Updated Documentation**
  - 1-SCM-R-TCX-2 Data Sheet (English) Version 1.3
  - CX23-R / EX23-R User Manual Version 6.2

Accessories

- **New Accessories**
  - E type thermal couple .3M 840BR adapter 1-SCM-R-TCE-2
- **Updated Accessories**
  - **None**

A complete listing of all supported modules, accessories, and documentation of the SomatXR line is available at the end of these release notes.

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Notes about the CX23-R firmware v1.18.1

- **Bugs Fixed / Issues Resolved**
  - **Shunt scaling task fails to run in certain situations.** Fixed a bug that resulted in the shunt scaling task failing to run if the user changed the bridge scaling mode from Strain Gage to Internal shunt resistor and did not save the changes before running the shunt scaling task.
  - **DIO output channel set/clear sink issue.** Fixed a bug with the DIO output channels that existed in all previous releases. Prior to this bug fix, the logic for the Output mode to set/clear sink was inverted, e.g., selecting the "Set sync unlatched" mode resulted in the "Clear sync unlatched" mode being applied, and vice-versa. Any SXR setup files created using previous firmware releases that used DIO output channels and ran properly will need to be modified after the firmware is updated.
- **Optimizations**
  - **Further stabilized recovery process of long term unattended tests involving MX modules.** MX modules connected to the CX23-R can under certain conditions stop announcing their presence to the CX23-R thereby making them unavailable in tests (and subsequent testing). The recovery process has been improved to account for this possibility and attempts to recover all MX modules involved with a test when there is an interruption.

Notes about the CX23-R firmware v1.18.0

- **New Features**
  - **Extended long term unattended testing protections.** Provided a new option to disable the front panel power switch and the remote power switch. Using this option is advised for long term unattended testing where stopping and starting test runs is controlled by turning the system power supply on or off.
- **Bugs Fixed / Issues Resolved**
  - **Time change during a test run issue.** Previously it was possible to set the time of the CX23-R during a test run which would result in a test failure. This issue has been resolved. Note that the time can still be set when running live updates.
  - **Corrupted live display chart names issue.** Previously under certain chart size, title, character usage, and configuration circumstances, the chart names could function erratically in the GUI. This issue has been corrected.
  - **General stability and bug fixing throughout the GUI.** Usability, stability, and correction of erratic GUI behavior in various subsystems within the user interface was completed. Keyboard usage in the spreadsheet edit mode has also been enhanced.
  - **Sensor dropping from a sensor database onto an MX channel and channel ID issue.** Previously when dropping a sensor from the sensor database onto an MX channel, the channel ID would be affected. This issue has been corrected.
  - **User profile and privileges inconsistency issue.** Previously inconsistencies were barring certain privileges to privileged users at the system configuration level. These issues have been addressed and the system now properly honors system configuration privileges granted to users with those privileges.
  - **Missing Rainflow DataMode data in SIE file.** In certain situations, when filling up the storage capacity of the CX23-R during a test run, Rainflow DataMode data in the SIE file would not be present. This issue has been corrected.

- **Remote control test stop and start issues when storage is full.** When the storage of the CX23-R was filled, the Remote Control test stop and attempting to start a test with the remote control when the storage was filled would put the system in an undefined state. This issue has been corrected, and starting and stopping tests when the storage is full now operates exactly the same as a non Remote Control test stop or start.
- **Channel header missing in GUI in certain situations.** Previously in the test control view, when collapsing and expanding the Test and data control column, the channel header would disappear. This issue has been corrected.
- **Change device action resulting in improperly configured channels.** In certain situations, a change device action would result in the hardware panel showing incorrect channels. This issue has been corrected.
- **Inconsistent display of significant digits in displays.** Previously there was an issue where significant digits would not display as configured, this issue has been corrected.
- **Issue with large log files not exporting properly.** When the log file reached a certain large number of entries, it would be impossible to export the log. This issue has been corrected, and the system will successfully export logs as requested.
- **Error dialog displayed after reboot when network is configured to use a static IP address.** Previously when rebooting the CX23-R after changing the network settings to a static IP address, an error dialog would show up on the next reboot, this issue has been corrected.
- **Lead wire correction using particular scaling settings improperly calculated.** When applying lead wire corrections and particular scaling modes, the resultant calculations written to the SXR file. This issue has been corrected and SXR migration implemented.
- **Live update startup problem after SXR file save.** In certain situations live updates would not start after setup file changes were saved. This issue has been corrected.

- **Optimizations**

  - **User friendly SIE filenames specified in logs.** Previously, system defined SIE file names were logged when a test was started. The user specified, user friendly SIE filenames are now being logged when a test is started to improve clarity and searchability.
  - **Added option for unlimited test restarts on error.** As an extension of the error restart functionality, the option for unlimited test restarts on error has been added to the system. See help system for more help.
  - **Reset of test restart count on error resets on successful test restart.** Previously the test restart count on error resets configured by the user would not reset when a successful test restart event occurred. This issue has been corrected and the test restart count will reset when a test successfully restarts after an error restart.
  - **Further support for robust long term unattended testing.** Major rework of functionality for long term unattended testing was completed. A significant help system topic was added to address this issue, please visit the help system for more information.

- **Known Issues and Advisories**

  - **Recommended browsers.** The recommended browsers when using the CX23-R web interface are up to date versions of Chrome and Firefox. The web interface may work on other browsers but may result in degraded or undesirable operation.
  - **Setups utilizing a video encoder, created with v1.14.0 will require configuration changes to work in v1.14.1.** If a previous setup was created with v1.14.0 or earlier firmware, the resolution of your video image will need to be changed to a properly supported resolution prior to running the test.

- **Setups utilizing multiple video channels from a multi-channel video encoder is not supported.** Although the CX23-R will allow the user to specify multiple video streams from a multi-channel encoder, using more than one channel from a multi-channel encoder is not supported, and configuring a test with this configuration may in not as-configured results, and is at the user's own risk. It is recommended the user only use one channel on a multi-channel video encoder.
- **Live video displays when using the Axis m7001 video encoder.** The Axis m7001 encoder can be used, but there are limitations on video display capabilities with this old and now discontinued Axis product. Video frames will be properly stored in the SIE file; however, viewing of the video frames is supported in the Hardware view only. As such, video frames cannot be displayed when the SIE test is running.
- **Users with previously undefined profiles.** If users have been previously configured with no profile, those users will be given read only permissions until a profile is assigned. This is an advisory effective if upgrading from v1.8.3 or earlier firmware.
- **Caution when using Netgear networking interfaces with the CX23-R.** Certain Netgear switches and routers have been known to not work reliably when connected to the Host port of the CX23-R. The problem will manifest as the Netgear networking interface showing the CX23-R is not connected when in fact it is. In certain situations, a power cycle of the Netgear networking interfaces can correct the problem. For these reasons, it is strongly recommended that for any high availability or high assurance test platforms, that Netgear networking interfaces not be used to connect to the CX23-R Host port.
- **Caution when using Firewire with MX Modules.** In certain atypical usage scenarios, MX modules can lose PTP sync when a test run is restarted after a reboot. See the help system topic that discusses setting up the SomatXR system for more information.
- **MX modules can get into a state where they can only be recovered via a power cycle.** On occasion, MX modules may get into a state where they are no longer recognized by the CX23-R interface. The work around for this issue is to power cycle the MX module.

Complete Listing of Modules, Accessories, Documentation and available Support Software Tools / Libraries

Modules

• SomatXR: Data Processor with 16 or 64 GB memory	1-CX23-R-xx-2
• SomatXR: Ethernet Switch PTP	1-EX23-R
• SomatXR: Standard Amplifier	1-MX1601B-R
• SomatXR: Bridge Amplifier	1-MX1615B-R
• SomatXR: Thermo Amplifier	1-MX1609KB-R
• SomatXR: Universal Amplifier	1-MX840B-R
• SomatXR: Highly Dynamic Amplifier	1-MX411B-R
• SomatXR: CAN module	1-MX471B-R
• QuantumX: Measuring Amplifier / 16 channels	1-MX1601B
• QuantumX: Bridge Amplifier / 16 channels	1-MX1615B
• QuantumX: Thermocouple Type K / 16 channels	1-MX1609KB
• QuantumX: CAN Module / 4 channels	1-MX471B
• QuantumX: Analog Voltage Output	1-MX878B

Documentation

• CX23-R Data Sheet (English / German)	Version 2.2
• CX23-R / EX23-R User Manual	Version 6.2
• CX23-R Quick Start Guide	Version 3.0
• EX23-R Data Sheet (English / German)	Version 1.2 (1.1)
• EX23-R Quick Start Guide	Version 1.0
• SomatXR Safety Manual	Version 2.1
• SomatXR Accessories Data Sheet (English / German)	Version 6.2
• MX1601B-R Data Sheet (English / German)	Version 3.0
• MX1609KB-R Data Sheet (English / German)	Version 3.0
• MX1615B-R Data Sheet (English / German)	Version 4.0
• MX840B-R Data Sheet (English / German)	Version 1.0
• MX878B Data Sheet (English / German)	Version 2.0
• MX411B-R Data Sheet (English / German)	Version 1.0
• MX471B-R Data Sheet (English / German)	Version 1.0
• MX Modules User Manual (English / German)	Version 4.0
• MX Modules Quick Start Guide (English / German)	Version 3.0
• NTX003 Data Sheet	Version 1.1
• 1-UPX00x-2 UPS Data Sheet (English / German)	Version 2.0
• 1-SCM-R-TCX-2 Data Sheet (English)	Version 1.3
• Reference Manual For libsie	Version 1.0
• 1-SCM-R-SG120-300-1000-2 Data Sheet	Version 1.1
• 1-CON-S3005-2 Adapter Data Sheet	Version 1.1
• 1-CASEMOUNT-UMB-2 Data Sheet	Version 1.0
• 1-CASEMOUNT2-2/3-2 Data Sheet	Version 1.0

Software Tools / Libraries

• HBM Device Manager	v1.0.0.1
• SomatXR Download Manager	v1.0.2
• SomatXR Emulator	v1.18.1
• libsie SIE library	v1.1.5

Accessories

• Xcode to Xcode Adapter w/Mount	1-CON-S3005-2
• Fastener CaseLink-Rug, 160mmx80mmx12mm	1-CASELINK-RUG-2
• 2 Unit Mounting System, 200mmx130mmx50mm	1-CASEMOUNT2-2
• 3/4 Unit Mounting Syst,295mmx130mmx50mm	1-CASEMOUNT3-2
• Universal Mounting Bracket	1-CASEMOUNT-UMB-2
• Voltage conditioner .3M 840BR adapter	1-SCM-R-VC60-2
• ¼ bridge 1000 .3M 840BR Adapter	1-SCM-R-SG1000-2
• ¼ bridge 350 .3M 840BR adapter	1-SCM-R-SG350-2
• ¼ bridge 120 .3M 840BR adapter	1-SCM-R-SG120-2
• K type thermal couple .3M 840BR adapter	1-SCM-R-TCK-2
• E type thermal couple .3M 840BR adapter	1-SCM-R-TCE-2
• ICP, with BNC .3M 840BR adapter	1-KAB430-0.3
• AC/DC power supply unit (24 V, 120 W)	1-NTX003-2
• Power supply cable (CX23-R to MX module)	1-KAB2110
• Power supply cable (low loss) with exposed wires	1-KAB2115
• Mounting brackets	1-CASEMOUNT
• Ethernet cable (CX23-R / EX23-R to MX module)	1-KAB2100
• Ethernet cable (CX23-R / EX23-R to PC / access point)	1-KAB2106
• Ethernet cable (CX23-R to EX23-R)	1-KAB2107
• Push-pull sensor cable	1-KAB183
• Break away sensor cable	1-KAB184
• Digital I/O cable with exposed wires	1-KAB2101
• GPS/AUX adapter (CX23-R to EGPS-5Hz)	1-KAB2102
• CAN adapter (CX23-R to SomatCR KAB292)	1-KAB2104
• GPS/AUX cable with exposed wires	1-KAB2108
• CAN cable with exposed wires	1-KAB2109
• Precision GPS Receiver-200Hz	1-EGPS-200-B-2
• Precision GPS Receiver-200Hz-PLUS	1-EGPS-200-P-2
• EGPS-200 GPS Antenna	1-EGPS-200-ANT-2
• EGPS-200 GPS Template – RTK	1-EGPS-200-TEM-2
• Trigger Cable for EGPS-200	1-SAC-GPSTRIG-2
• Cable Extensions	1-SAC-EXT-MF

Accessories (cont'd)

• Full-bridge adapter (to eDAQ M8 connector) (4 wire - no sense line)	1-KAB2117
• Quarter-bridge adapter (to eDAQ M8 connector) (3 wire - no sense line)	1-KAB2118
• Voltage adapter (to eDAQ M8 connector)	1-KAB2119
• ¼ Bridge Adapter (ODU 14 pin to M8F connector)	1-KAB2122-0.3
• CX23 + eDAQ sync cable (M12 to LEMO)	1-KAB2111-2
• GPS Receiver - 5Hz Update	1-EGPS-5HZ-2
• Pelican Case - eDAQ-lite/SXR	1-PEL1520-2
• Pelican Case - eDAQ/eDAQ-lite/SXR	1-PEL1600-2
• AC/DC Power Supply (24 V, 30 W) ODU 4p	1-NTX002
• Plug (ODU 4p push-pull)	1-CON-P1001
• Power supply (ODU, 5 m, open)	1-KAB294-5
• Connecting elements	1-CASELINK
• Carrying handle	1-CASECARRY
• 4 protective caps for ODU sensors	1-CON-A2013
• 2 protective caps for ODU system	1-CON-A2014
• FireWire ExpressCard adapter	1-IF-002
• FireWire intermodule (ODU, IP68, 2 m)	1-KAB272
• FireWire PC (ODU / FW, IP68, 3 m)	1-KAB276-3
• FireWire (module to PC, IP68, 5 m)	1-KAB293-5
• Ethernet cable (IP65/5m)	1-KAB273-5
• Connector (ODU, 14 pol, IP68)	1-CON-P1007
• Plug (ODU 14p break-away)	1-CON-P1016
• 1-wire-EEPROM DS24B33	1-TEDS-PAK
• 10 Connectors thermo mini (type K, RFID)	1-THERMO-MINI
• QuantumX: UPS	1-UPX001-2
• SomatXR Uninterruptable Power Supply	1-UPX002-2