RELEASEnotes

October 2015
Version 1.8.0

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

- **Newly Supported Modules**
  - SomatXR: Universal Amplifier   1-MX840B-R
  - SomatXR: Highly Dynamic Amplifier   1-MX411B-R
  - SomatXR: CAN Module   1-MX471B-R

Firmware

- CX23-R Firmware Version 1.8.0 (Build 1878)
- MX Module Firmware Version 4.2.56.0
  - Included in CX23-R firmware to update from the Web Interface.

Documentation

- **New Documents**
  - MX840B-R Data Sheet (English / German)   Version 1.0
  - MX411B-R Data Sheet (English / German)   Version 1.0
  - MX471B-R Data Sheet (English / German)   Version 1.0

- **Modified Documents**
  - CX23-R Data Sheet (English / German)   Version 2.0
  - CX23-R / EX23-R User Manual   Version 3.0
  - SomatXR Accessories Data Sheet (English / German)   Version 2.1
  - MX Modules User Manual (English / German)   Version 3.1
  - MX Modules Quick Start Guide (English / German)   Version 2.0

What's new? (cont'd)

<u>**Accessories**</u>

- **New Accessories**
    - 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

- **Modified 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 v1.8.0

- **Bugs Fixed / Issues Resolved**
  - **Allowing improper quarter 3 wire bridge configuration on MX1615B-R is now fixed.** Fixed an issue with the user interface incorrectly allowing the user to select the AC excitation mode for quarter 3 wire bridges on the MX1615B-R. Attempting to start a test using this invalid configuration previously resulted in a CX23-R reboot on critical error.
  - **CAN channels not applying user defined scaling.** Fixed an issue with CX23-R CAN channels not applying user defined scaling. This means that the CAN channel data was always scaled per the Vector DBC file scale parameters. For CAN channels, user defined scaling is primarily used for unit conversions.
  - **Incorrectly flagged TEDS sensors issue resolved.** Fixed a bug where channels with TEDS sensors were incorrectly flagged as "TEDS synced" after the channel was "TEDS edited" and the TEDS sensor was disconnected and later reconnected.
  - **Automatic setting of digital filters frequency on excitation mode changes issue.** After setting the sample rate, and digital filter type, adjusting the excitation mode previously auto adjusted the digital filter frequency. This issue has been resolved.
  - **TEDS sensor issues resolved.** Fixed a bug that resulted in some TEDS edited sensors (PT100 sensors for example) being incorrectly flagged as TEDS synced after rebooting the MX module. Fixed a bug that resulted in some TEDS sensors (PT100 sensors for example) being incorrectly flagged as TEDS edited after a test run was started and then stopped.
  - **Digital meters unable to run when storage is full.** An issue where digital meters were unable to run properly when storage was full has been corrected and the user can now run digital meters even if the storage is full.
  - **Gateway IP, and system IP address auto configuration issue resolved.** An issue where a custom network configuration with a blank gateway IP, got automatically set to the system IP has been corrected. More details about proper network configuration is available in the help system.
  - **Large customer service packages truncated data issue.** Large customer service packages which took longer than 10 seconds to process and/or download were being truncated. This issue was resolved and the customer service package will be generated and downloaded in its entirety as intended.
  - **Display of units in SIE viewer duplication issue.** Fixed a bug that resulted in the units string being displayed twice on the X-axis for the Time At Level DataMode when using InField and other SIE viewers.
  - **Chart scaling persistence across test start and stop issue.** Fixed a bug where changing scaling of a stacked chart display, starting a test, stopping the test, reverted the scaling to auto. This issue is resolved and scaling persists properly across test starts and test stops.
  - **Several digital display and chart related issues.** Several bugs involving use of the digital displays, and charts were fixed. Issues dealt with the displays or charts resuming after changing the type of display or freezing the current reading.
  - **Un-programmed TEDS sensors not handled properly.** MX modules sensors with un-programmed TEDS EEPROMS connected are now handled properly.

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- **New Features**
  - **Critical Change.** **SXR file format changes.** The SXR file format has been changed significantly in this release. The main repercussion of this is that any SXR file generated with this release or with any future release will not work with any release prior to this one. However, all SXR files generated with previous releases will still work with this and future releases.
  - **Support for J1939 CAN requests.** The CX23-R now supports optional transmission of J1939-21 compliant "Request" messages on the CX23-R's onboard CAN connectors.
  - **Statistics computed channel is now supported.** The Statistics computed channel is now supported. Information on its use and configuration are available in the help system.
  - **Extended SIE export tools for extracting raw data from Message channels and SXR hardware information.** The available SIE export tools have been extended to include a new option to extract raw data from Message channels. This includes Camera JPEG images, raw CAN messages, raw GPS NMEA messages, and other GPS messages. The SIE export tools have also been extended to extract the SXR hardware information file. More information is available in the help system.
  - **Related setup parameters can be collapsed into a single tab or expanded on the channel setup grid.** Related setup parameters are now collapsible into a single tab to preserve viewing and configuration space in the user interface. Information on the use of this feature is available in the help system.
  - **Newly supported MX Modules.** The CX23-R now supports using the MX840B-R (Universal Amplifier), the MX411B-R (Highly Dynamic Amplifier, and the MX471B-R (CAN Module). Information on their use and configuration are available in the help system.
  - **Changes to currently running test are no longer allowed.** To preserve the state of the currently running test as well as all associated plots and displays, the currently running test will not be able to be changed.
  - **Anomaly Detect computed channel is now supported.** The Anomaly Detect computed channel is now supported. Information on its use and configuration are available in the help system.
  - **Message Logger computed channel is now supported.** The Message Logger computed channel is now supported. Information on its use and configuration are available in the help system.
  - **Run Stopper computed channel is now supported.** The Run Stopper computed channel is now supported. Information on its use and configuration are available in the help system.
  - **System will now inform the user if the MX firmware requires updating.** Diagnostic messages will display when opening test configurations involving MX modules which are not at the current firmware revision to work with the CX23-R firmware. Additionally, the hardware properties pane for the MX module will contain a message in red indicating that the MX module firmware requires updating if necessary.
  - **System preference added to allow or prevent setup changes while a test is running.** There is now a system preference that has been added to allow or prevent changes to any setup files while a test is running.
  - **Improvement of test control widgets.** A considerable redesign of the test control pane to enhance usability, readability, and stability of the test control area of the user interface.

- o **Improved system status bar customizations.** The system status bar at the bottom of the user interface can now be further customized to include or exclude certain status indicators of the system. The configuration of the status bar can be found under user preferences.
- o **Expanded Axis camera support.** Newly supported cameras include the Axis Video Encoders M7001, and M7011.
- o **Modified units selection in test configuration.** For most channels the user can specify any string for the Units. However, for certain channels, the user interface provides a drop down list for selecting the Units. These types of channels are limited to the MX modules temperature channels, and MX module bridge channels that use the Straight Gage Scaling Mode.
- o **Removed unusable camera image compression settings.** The 90% and 100% compression settings on camera channels has been removed as the image produced under those settings is unrecognizable.

- • **Known Issues and Advisories**
  - o **Critical Notice. SDBX files need to be reloaded.** SDBX database files imported prior to this release should be deleted and then reimported. If this is not done, SDB sensors cannot be used with the new MX840B-R and MX411B-R modules. Also, if this is not done, any Bridge or Strain Gage sensor applied to an MX1615B-R channel will be flagged with an error; however, this error is easily cleared by selecting the one and only option for the "Max electrical" setting. As such, it is best to reload the SDBX database files. Sorry for this inconvenience. In future releases, reloading SDBX files will not be required.
  - o **Camera live displays are not currently supported using Internet Explorer.** This issue is further being investigated.
  - o **Rapidly creating new tests may allow multiple tests to be created with the same name.** This is a known issue, and is mitigated by waiting a few seconds between clicking the new test creation button. The issue is set to be resolved in a future version of firmware.
  - o **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.
  - o **Caution when using SSL connections with Safari web browser.** When using the Safari browser with secure socket layer connections, the live displays and live updates in the web interface may not work properly without special certificate configuration. See the help system topic for more information.
  - o **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.

Complete Listing of Modules, Accessories, and Documentation

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

Documentation

• CX23-R Data Sheet (English / German)	Version 2.0
• CX23-R / EX23-R User Manual	Version 3.0
• CX23-R Quick Start Guide	Version 2.0
• EX23-R Data Sheet (English / German)	Version 1.1 (1.0)
• EX23-R Quick Start Guide	Version 1.0
• SomatXR Safety Manual	Version 1.0
• SomatXR Accessories Data Sheet (English / German)	Version 2.1
• 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 3.0
• MX840B-R Data Sheet (English / German)	Version 1.0
• 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 3.1
• MX Modules Quick Start Guide (English / German)	Version 2.0
• NTX003 Data Sheet	Version 1.1

Accessories

• 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
• 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