1830A Firmware Release Notes

Revision 1.1.54a (7227)

November 2019

Main Application

Recompiled to change version number

Analog Board

No Change

Web Application

Added the latest user manual
Removed all references to LXI

Note: There are no substantive changes in this revision. TEGAM recommends not upgrading to v1.1.54a except during maintenance events which require re-flashing the instrument's firmware. Upgrades to v1.1.54a must be done at the TEGAM factory.

Revision 1.1.52a (7226)

May 2015

This upgrade moves the 1830A Operating System from the SD Card to Onboard Flash.

Main Application

Changed the maximum number of averages from 8 to 99

Analog Board

No Change

Web Application

Added the latest user manual

Note: Do not attempt this upgrade if you are not running 1830A firmware revision 1.1.38a.

Revision 1.1.50a (7223)

December 2014

Main Application

Firmware changed to run from flash and not SD card

Analog Board

No Change

Web Application

No Change

v1.1.38a (7219)

September 2013

Main Application

Fixed bug 905 - Front panel would sometimes truncate the cal factor value (e.g., 0.99858 would display as 0.9985)

Analog Board

No Change

Web Application

Fixed bug 857 - incorrect column header on web based calibration screen

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v1.1.36a (7217)

April 2013

Main Application

Change software to better detect when heater has gone into regulation, and updating the from panel.

Analog Board

No Change

Web Application

Added new manual with documentation about the heater regulation change

Note: When performing this update, disconnect any heater and mount from the unit before the upgrade. If the heater is not disconnected before the upgrade, the heater will not be able to detect stable temperature, and will not go to an OK status. To correct this issue, unplug the mount and heater from the unit, and wait 2 minutes.

v1.1.34a (7209)

April 2013

Main Application

Changed version number

Analog Board

Fixed issue where board would boot in iguana mode. Only caused issues during calibration.

Web Application

Fixed typo described in bug 625

v1.1.32a (7208)

October 2012

Main Application

Changed version number

Analog Board

No changes

Web Application

Added revision G of the 1830A Manual

v1.1.30a (7207)

September 2012

Main Application

- Fixed issue where heater current was displayed in mW.
- Added code to better detect overload conditions, and make sure the display is right with displaying them.
- Fixed issue where system temperature value was displayed in scientific notation
- CAL_FACTOR_LIMIT values change to 1e-9 as minimum, 1300 as maximum. To allow larger attenuators to be attached to the unit

Analog Board

No changes

Web Application

Added the file browser link back to the navigation pane. To fix an issue with the Air Force TO.

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v1.1.28a (7186)

March 2012

Main Application

- Fixed issue where the exponent value would not increase when editing a calibration factor
- Added code to ensure proper limit checks on cal factors

Analog Board

No changes

Web Application

No changes

v1.1.26a (7131)

February 2012

Main Application

- Fixed issue when trying to set a manual IP address when not connected to a network
- Change cal factor limit to a variable CAL_FACTOR_LIMIT, default value 2 to maintain backwards compatibility.

NOTE: if using "large" cal factors to represent a standard with attenuator, the user MUST use the menu Setup->Instrument->Cal Factor Limit and adjust the limit to a value equal to or larger than the value they intend to enter manually. This limit does not apply to values set over the network.

Analog Board

No changes

Web Application

Change calibration code so that error from nominal will not set a yellow flag, only a red flag if outside of limits

v1.1.24a (7102)

January 2012

Main Application

- Changed the default Max Voltage value to 7, and change the limit for the value to 10
- Fixed code to detect proper FPGA version, and do correct heater voltage and current math

Analog Board

No changes

Web Application

- Removed the file browser link from the navigation pane. Can still be accessed at /file/index.php
- Added an units column to the calibration values results pages
- Change the maximum Delta from Nominal for the CS1BvDac value from 10000 counts to 100 counts.

CAUTION: USAF NextGen users - This release fixes a problem that NextGen had when using attenuators to calibrate low-power sensors, by allowing calibration factors in excess of 2.0. HOWEVER an update to NextGen is required to successfully use this version without over-powering the standard. Please do not download and use this update until advised to do so by AFMETCAL. TEGAM has been advised that a fix to this issue is due in mid-April, 2012.

Note: When manually entering large cal factor values to test setups with attenuation, use the menu Setup->Instrument->Cal Factor Limit and raise the limit. Otherwise, manual entries of cal factor will be limited to the value of CAL_FACTOR_LIMIT, which defaults to 2.0.

v1.1.22a (7089)

April 2011

Main Application

Added menu option to change the number of averages for the primary power readings. Instrument->Read Avgs

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Analog Board
Changed firmware to allow operation with 1510 and 2510 mounts

Web Application
No changes

v1.1.20a (7066)

Main Application
- Changed displayed digits for dBm reading on front panel
- Changed displayed digits for frequency when editing a sensor
- Fixed bug in VISA communications where the wrong byte count would be returned

Analog Board
Changed version number

Web Application
- Changed calibration results screen to show what percentage of the limit value has the calibration changed.
- The limits for the percentage of limit values can be set through the front panel at SETUP->Maintenance->Cal Limits

v1.1.18a (6985)

Main Application
- Changed system to always make the USB port available as long as it is enabled in the application.
- Fixed a minor shutdown bug.

Analog Board
Changed version number

Web Application
Changed version number

v1.1.16a (6937)

Main Application
Fixed bug in buffer of VXI interface.

Analog Board
No Changes

Web Application
No Changes

v1.1.14a

Main Application
No Changes

Analog Board
No Changes

Web Application
Changed the xml file that contains maximum error from last calibration values

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v1.1.12a

Main Application

- Changed code to not do open wire check while in run mode, will still do open wire check when exiting standby
- Changed code to enable mount before checking for open wire
- Changed operation to not allow unit to be put into calibration mode if not in standby, or there are alarms active

Analog Board

No Changes

Web Application

No Changes

v1.1.10a

Main Application

Made changes to send command to clear ADC MUX settings when taking critical readings

Analog Board

Added command to clear ADC MUX settings

Web Application

No Changes

v1.1.06a

Main Application

- Increased the analog board reset time
- Now create a backup copy of configuration file at startup
- Changed code for open wire detection to use open wire detect circuit
- System temperature now read from MSC1210 chip
- Made changes to system state machine to fix state transtition bugs
- System now uses a ramdisk for system pid file handling
- Various other minor bug fixes

Analog Board

- Added a checksum check to the data stored in flash memory
- Some code cleanup

Web Application

No Changes

v1.1.04a

Main Application

- Limited Cal Factor values to 90dB of correction
- Fixed screen editing bug where putting a cal factor value less than 0.0001 resulted in an error
- Fixed bug where substituted power calculation would not work if the cal factor was too small
- Fixed state machine menuing bug

Analog Board

- Fixed bug where DAC20 register read would fail reading the LSB correctly.
- Made changes to help improve accuracy

Web Application

No Changes

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v1.1.00a

Main Application

- Changes to web interface calibration as per recommendations from the Army
- System is LXI compliant

Analog board

No Changes

Web Application

No Changes

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