

Release Notes Firmware Version 2.1.2

We welcome any suggestions, questions, and bug reports.

Please send your enquiries to: support@chromasens.de

Camera series: allPIXA evo 10K DXGE, allPIXA evo 15K DXGE

Notes

The packages from 2.x and higher have higher performance than packages 1.x. Therefore, the power consumption increases a little. Some old cameras depending on user settings may not be able to capture images stable after update to 2.x. If your camera is series CP000590 with serial number below 180 please contact the Chromasens support to check if your camera is ready for 2.x.

Changes and new Features

- DeviceHWCalibFileVersion feature added!
- Feature ImageCalibrationMode supports internal DSNU/PRNU reference capturing now!
- Added new feature InfoBlockMode!
- DecimationHorizontalFloat feature is available!
- DeviceFanEnable feature added, to control a fan connected to the camera!
- Introduced "PixelColorFilter" feature!
- Introduced "ScanDirectionSource" feature!
- Support AcquisitionMode SingleFrame now!
- Remove internal DSNU/PRNU reference capturing timeout.
User has to stop it manually if required.
- FileAccessControl is revised to work also with third party application
- Replaced UserSetComment with SFNC feature UserSetDescription.
UserSetComment feature is still available but not visible
- Adapted range of TriggerDelayLines and SlaveDelayLines feature
- Increased Accuracy of "TriggerDelayLines" feature
- ExposureTime configuration is not limited by AcquisitionLineTime-Feature if using LineStart or MasterSlaveMode=Slave
- Revised the LedFlashControl configuration
- Some features are not available when the camera is Slave during Master Slave Mode
- Synchronize "AcquisitionStop" command to end of frame now
- The region "Width" feature is independent of the "PixelFormat" now.
The "Width" feature is always a multiple of 8 now.
- Gain Auto continuous enhancements to avoid undesired brightness steps in image
- The GainSelector is now set to "ALL" (no longer "RED") during user set load for color camera
- Set the default user set Line Distance to 2.0
- Set the default user set AcquisitionLineTime to 55 us
- UserSet default value for TDI will be maximum value from now
- Changed the representation of IP and MAC address in xml

- The DeviceProductNumber is returned for the DeviceVersion feature too.
- However, the DeviceVersion feature is kept invisible as before.
- Added TLParamsLocked to the following features:
 - ExposureMode
 - ExposureTimeMode
 - MasterSlaveMode
 - MasterSlaveInterface
 - CxpLinkConfiguration
 - CxpVersionUsed
 - CxpConnectionTestMode
 - CxpConnectionTestPacketCountTx
 - CxpConnectionTestPacketCountRx
 - CxpConnectionTestErrorCount

Bug Fixes

- Mono GainControl fixed (TDI was not considered correctly)
- Fixed a bug in the I2C communication
- Set the DeviceVersion also for TransportLayer Bootstrap registers
- Fixed the gamma feature bug
- Added invalidation for gain control region when the gcr parameters change (To stabilize gain control avoid working with invalid gcr values)
- Fixed a bug in LineDistance component
- Fixed a bug concerning grey image and binning
- Solved bugs for GCR (Gain Control Region)
- Master/Slave Mode working line frequency increased
- Fixed the bug in configuring the master slave interface correctly
- Fixed the bug of the black calibration for slave camera
- Black level control failed during boot process if there is no line trigger.
- Fixed the bug of not displaying the default model name if **DeviceModelName** is not configured
- Fixed the bug when reading the DeviceUserID from flash if flash is uninitialized
- Fixed Gain initialization bug for mono cameras
- Bug in case of using Color2Grey is fixed (Mono pixel format was not displayed correctly)
- The problem with negative values for brightness/contrast feature is fixed
- Fixed bug regarding reading negative float values from user setting
- Fixed the error that the register edit entries of the user set were not applied when the respective user set was loaded
- Setting the UserSetComment feature was not working for some host applications. Adapted the firmware to make it more flexible at this point.
- ImageCalibrationMode CalibrateDSNUInternal/CalibratePRNUInternal synchronization intransport direction is working now.

- Check EncoderSourceA/B is extended to avoid invalid configuration
- Bug fixes in LedFlashControl parametrization
- Problem of Missing line for some AcquisitionLineTime depending on CxpLinkConfiguration is fixed
- ax sensor segment error solved
- Use new frame buffer IP-Core to avoid splitting images if the line trigger stops
- Now no more problem with the first captured image when using TriggerDelayLines or AcquisitionFrameRate feature.
- Checking command status of UserSetLoad feature is now possible

Incompatibilities

- Master/Slave cascade mode is not explicitly settable anymore!
- The Master Slave interface setting external is now the former cascade mode!
- The minimum value for "Width" feature is increased to 128
- Changed the behavior of UserSetComment/UserSetDescription feature.
Now it happens that whenever user set description is changed for the selected user set it is not saved immediately.
It will be saved only when UserSetSave command is executed.
Before the user set comment of the active user set was stored when performing UserSetSave command.
Now the displayed user set description will be saved.
- Limit "BinningHorizontal" and "DecimationHorizontalFloat" maximum values depending on "Width"
- In former packages a frame was splitted when an internal timeout expired in case of line trigger stop.
Now this timeout has been removed and the camera waits to complete the frame if line trigger stops.
No splitting of frames is done anymore
- The RGB10p32 pixel format is not supported anymore. Loading user settings with RGB10p32 pixel format may fail.
- If synchronization mode is active GainAuto "Continuous" will work only during acquisition.
- Adapted the minimum encoder divider value to 0.02f

Errata

- LED-Flashing-Control:
 - Problems are expected when TriggerMode is off.
 - Errors are expected when exceeding the minimum sequence time
- When using mono mode (Mono camera or Color2Grey conversion) and the GainControlRegion is outside the actual region of interest and LineDistance=0, the image is corrupted.