

## Release Notes Firmware Version 2.1.0

We welcome any suggestions, questions, and bug reports.

Please send your enquiries to: [support@chromasens.de](mailto:support@chromasens.de)

### Camera series: allPIXA evo 8K DXGE

#### Changes and new Features

- Introduced "PixelColorFilter" feature for g8\_x with "White" filter support.
- Introduced "ScanDirectionSource" feature
- Support AcquisitionMode SingleFrame now! (see limitations in Errata)
- Synchronize "AcquisitionStop" command to end of frame now
- "DecimationHorizontal" is finalized for values greater 1.
- The region "Width" feature is independent of the "PixelFormat" now.  
The "Width" feature is always a multiple of 8 now.  
Before it was a multiple of 24 for Mono and RGBA pixel format.
- Extended internal DSNU/PRNU correction for mono mode
- Gain Auto continuous enhancements  
Added an incremental mode for the Gain Auto continuous operation, stepsize 0.5%.  
The incremental mode is activated after all channels are quickly adjusted with the largest possible steps of the gain.
- The GainSelector is now set to "ALL" (no longer "RED") during user set load for color camera
- Extend the range for led flash features OutXOnTime and PatternDuration
- Set the default userset Line Distance to 2.0
- Set the default userset AcquisitionLineTime to 55 us
- Some features are not available when the camera is Slave during Master Slave Mode
- Changed the representation of IP and MAC address in xml

#### Bug Fixes

- Setting the UserSetComment feature was not working for some host applications.  
Adapted the firmware to make it more flexible at this point.
- Fixed the bug in setting the EncoderSource to 'Off'  
It happened that the LineMode was changed so that the LineStart trigger obviously was not working anymore.
- Fixed Bug for black level control during boot using external triggering
- Fixed Bug in xml for some applications displayed the ReverseX feature underneath the test pattern feature
- Fixed some bugs of led flashing
- Fixed the bug in DSNU/PRNU First and Last valid pixel feature for mono camera
- Do not display GainSelector All entries for mono camera anymore.
- Fixed the bug in GainAuto Continuous was not switched off when loading user set if required

- Fixed the bug when executing AcquisitionStop if grabbing was inactive all subsequent AcquisitionStart commands failed.
- Now no more problem with the first captured image when using TriggerDelayLines or AcquisitionFrameRate feature.
- Fixed Bug in xml for displaying the TDI feature.
- Fixed bug in returning the value for DeviceRegisterEndianness and StreamChannelEndianness
- The "LoadedUserSet" feature was not implemented correctly.
- The last 12 pixel of every frame were wrong.
- MeasuredLineTime feature is working now.

### Incompatibilities

- Now AdjustTargetValueToMaxVideo feature is not available for standard evo anymore.
- Changed the behavior of UserSetComment feature.  
Now it happens that whenever user set comment 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 comment will be saved.
- If synchronization mode is active GainAuto "Continuous" will work only during acquisition.
- Adapted the minimum encoder divider value to 0.02f

### Errata

- ImageCalibrationMode CalibrateDSNUInternal/CalibratePRNUInternal synchronization in transport direction is not working. This is critical if the target is not completely White (PRNU) or Dark (DSNU).
- In AcquisitionMode=Single sometimes AcquisitionStart is not delivering an image.
- In AcquisitionMode=Continuous sometimes a long delay may occur before the camera delivers the first image. In this case the first delivered image is corrupted.
- Problems may occur with minimum region Width 8
- When using Binning or Decimation Horizontal the region width may get less than the minimum valid value.
- The GainControlRegion is not properly drawn.
- Master-Slave-Mode:
  - When changing from Slave to Master/Off and back to Slave.  
The slave images may be corrupted. This occurs if the TriggerMode in the user setting is generally enabled, even though it should be overridden by Slave-Mode.
  - The min line period should not be less than 11.25  $\mu$ s. (Also, the effective line time in triggered mode). This case is currently not covered by this firmware package.
- LED-Flashing-Control:
  - The sequence start is not always correct when TriggerMode is off.  
This depends on the SequenceTime too.

- LED-Flashing is not working in combination with Master-Slave-Mode
- If ImageHeight is not a multiple of NoOfPattern then the resulting image height is not correct by one line more or less.
- The FrameTrigger and Encoder source must not share the same LineX.  
This conflict is currently not recognized by the firmware package.