## **Release Notes Firmware Version 2.5.0**

We welcome any suggestions, questions, and bug reports. Please send your enquiries to: <a href="mailto:support@chromasens.de">support@chromasens.de</a>

Camera series: allPIXA evo 10K 15K DXGE

## **Changes and new Features**

- Added the DeviceLogLevel feature
- Support non-volatile logging for better debugging of customer issues
  - o The log is accessible by the LogFile in the File Access Control.
- Exposure Time can be changed during grabbing now
- Changed GevMACAddressConfigReg from MaskedIntReg to IntReg type, to avoid GCT/GenAPI issues
- Improved order of pixel format initialization during user set load
- Support FPGA-XADC
- Added new features for the flat field correction (DSNU/PRNU)
  - FlatFieldCorrectionCalibrationMode
  - FlatFieldCorrectionSelector
  - FlatFieldCorrectionEnable
  - FlatFieldCorrectionDataSetDescriptionReg (Will be renamed in next beta to FlatFieldCorrectionDataSetDescription)
  - FlatFieldCorrectionDisplayReference
  - FlatFieldCorrectionAvailablePlanes
  - FlatFieldCorrectionFirstPixel
  - FlatFieldCorrectionLastPixel
  - FlatFieldCorrectionStartCalibration
  - FlatFieldCorrectionStopCalibration
  - FlatFieldCorrectionCalibrationStatus
- The following features are DEPRECATED now and will be removed from Package 3.0.0. The new features to be used are given within the parentheses:
  - ImageCalibrationMode
    (FlatFieldCorrectionCalibrationMode)
  - DarkSignalNonUniformitySelector (FlatFieldCorrectionSelector)
  - o DarkSignalNonUniformityDataSetInformation Removed without alternative
  - DarkSignalNonUniformityAvailablePlains (FlatFieldCorrectionAvailablePlanes)
  - DarkSignalNonUniformityReferenceOutput (FlatFieldCorrectionDisplayReference)
  - DarkSignalNonUniformityFirstPixelReg (FlatFieldCorrectionFirstPixel)

- DarkSignalNonUniformityLastPixelReg (FlatFieldCorrectionLastPixel)
- PhotoResponseNonUniformitySelector (FlatFieldCorrectionSelector)
- PhotoResponseNonUniformityDataSetInformation Removed without alternative)
- $\circ \quad PhotoResponseNonUniformityAvailablePlains$

(FlatFieldCorrectionAvailablePlanes)

 $\circ \quad PhotoResponseNonUniformityReferenceOutput \\$ 

(FlatFieldCorrectionDisplayReference)

- PhotoResponseNonUniformityFirstPixelReg (FlatFieldCorrectionFirstPixel)
- PhotoResponseNonUniformityLastPixelReg (FlatFieldCorrectionLastPixel)
- LUTSelector (LUT selector is not deprecated, but some entries)
- DarkSignalNonUniformityLUT1 (FlatFieldCorrectionSelector:DSNUDataSet1)
- DarkSignalNonUniformityLUT2 (FlatFieldCorrectionSelector:DSNUDataSet2)
- PhotoResponseNonUniformityLUT1 (FlatFieldCorrectionSelector:PRNUDataSet1)
- PhotoResponseNonUniformityLUT2 (FlatFieldCorrectionSelector:PRNUDataSet2)
- LUTDatasetNameReg (FlatFieldCorrectionDataSetDescriptionReg -> FlatFieldCorrectionDataSetDescription in next release 2.6)
- To enable a DSNU/PRNU data set use: FlatFieldCorrectionEnable

## **Bug Fixes**

- Fixed a bug in setting the exposure Time
- Fixed wrong calculation for min line period in TDI mode
- Update Min Line Period when configuring the TDI
- Fixed the bug of one line missing in case of TDI mode and line period less than 14us
- Fixed a bug in user set control, concerning pixelformat
- Fixed a bug concerning false error detection during boot if the DeviceLogLevel is Warning or Error
- Fixed a bug concerning the black level control
- Fixed disabling FFC-Data-Set bug. (Could not disable wrong data set)
- Fixed the bug in checking the encoder source and trigger source parameters
- Removed "Unsigned" from 64-bit InReg node in XML, because it is not supported by GenAPI

## **Errata**

- LED-Flashing-Control:
  - o Problems are expected when Frame Trigger and Line Trigger are off.
  - o Errors are expected when exceeding the minimum sequence time
- The Internal DSNU/PRNU creation may not work properly. Please check the result is good or not.
- In Master Slave Mode there may be a constant shift between the cameras
- There may be issues with Gamma
- In some conditions gain auto may not work properly