

## CSI-2 FIRMWARE RELEASE NOTES

### Alvium 1500 C, 1800 C, FP3, and GM2 cameras

**2024-Nov-27**  
**V00.14.00.baba1e3c**



#### Helpful downloads

- Operating and updating cameras:
  - Alvium CSI-2 Cameras User Guide
  - Alvium FP3/GM2 User Guide
- Controls for **Direct Register Access**: Alvium CSI-2 Register Controls Reference
- Features for **GenICam for CSI-2 Access**: Alvium Features Reference  
[www.alliedvision.com/en/support/technical-documentation/alvium-csi-2-documentation](http://www.alliedvision.com/en/support/technical-documentation/alvium-csi-2-documentation)
- Firmware files  
[www.alliedvision.com/en/support/firmware-downloads](http://www.alliedvision.com/en/support/firmware-downloads)
- Firmware updater, included in **Vimba X**  
[www.alliedvision.com/en/products/software/vimba-x-sdk](http://www.alliedvision.com/en/products/software/vimba-x-sdk)

## Latest firmware version for your Alvium CSI-2 model

The following table lists the latest firmware version for your Alvium CSI-2 camera.

Model	FW version	Document release
<b>Alvium 1500 C</b> : C-120m/c, C-210m/c, C-500m/c, C-501 m/c NIR <b>Alvium 1800 C</b> : C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-320 VSWIR, C-500m/c, C-507m/c, C-507m/c Pol, C-508m/c, C-508m/c Pol, C-510m/c, C-511 m/c, C-530 VSWIR, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c <b>Alvium FP3/GM2 Coax/STP</b> : X-030 VSWIR, X-040m/c, X-052m/c, X-130 VSWIR, X-158m/c, X-203m/c, X-210m/c, X-234m/c, X-235m/c, X-240m/c, X-291m/c, X-319m/c, X-320 VSWIR, X-500m/c, X-501m/c NIR, X-507m/c, X-507m/c Pol, X-508m/c, X-508m/c Pol, X-510m/c, X-511 m/c, X-530 VSWIR, X-811 m/c, X-812 UV, X-895m/c, X-1236m/c, X-1240m/c, X-1242m/c, X-1620m/c, X-2040m/c, X-2050m/c, X-2460m/c	FW 00.14.00.baba1e3c	2024-Oct-16
<b>Alvium 1500 C</b> : C-050m/c <sup>1</sup>	FW 00.11.00.9cf0c21e   2nd update	2023-Apr-21

<sup>1</sup> Alvium 1800 C-050 models are delivered with firmware 00.11.00.9cf0c21e. The firmware version cannot be updated to later versions.

X- represents FP3 or GM2.

Table 3: Latest firmware version by model



#### Alvium X-

X is used as a placeholder for 1500 C, 1800 C, FP3, or GM2. This convention is used first with FW version 00.11.00.9cf0c21e, document version 2023-Apr-21.

## Minimum firmware versions by model



#### Added contents

This section was added on 2024-Nov-27 with an updated version for the FW 00.14.00 release ([FW 00.14.00.baba1e3c](#) on page 3).



#### Firmware Downgrade

**We strongly advise against downgrading the firmware**, as the latest version includes essential updates and bug fixes. If you must downgrade, please refer to the list in [Table 4](#): below for the minimum supported firmware version by camera model.

**Caution:** Downgrading your camera firmware below the specified minimum version renders the camera inoperable.

Alvium X-	Minimum FW	Alvium X-	Minimum FW	Alvium X-	Minimum FW
030 VSWIR	00.11.00	240m/c	00.11.00	530 VSWIR	00.13.02
040m/c	00.11.00	291m/c	00.11.00	811m/c	00.11.00
050m/c	00.11.00	319m/c	00.11.00	812 UV	00.11.00
052m/c	00.11.00	320 VSWIR	00.13.02	895m/c	00.12.00
120m/c	00.11.00	500m/c	00.11.00	1236m/c	00.11.00
130 VSWIR	00.11.00	501m/c NIR	00.11.00	1240m/c	00.11.00
131m/c	00.13.01	507m/c	00.11.00	1242m/c	00.11.00
158m/c	00.11.00	507m/c Pol	00.13.00	1620m/c	00.11.00
192m/c	00.13.01	508m/c	00.11.00	2040m/c	00.11.00
203m/c	00.12.00	508m/c Pol	00.13.00	2050m/c	00.11.00
234m/c	00.11.00	510m/c	00.11.00	2460m/c	00.11.00
235m/c	00.11.00	511m/c	00.11.00		

Table 4: Minimum firmware version by model



#### Solution for inoperable cameras after unsupported firmware updates

If you have rendered your camera inoperable by trying to downgrade the firmware to a version below the minimum version, please visit [www.alliedvision.com/en/about-us/contact-us/technical-support-repair/-rma](http://www.alliedvision.com/en/about-us/contact-us/technical-support-repair/-rma) for firmware recovery.

## FW 00.14.00.baba1e3c

Date of document release: 2024-Oct-16

### Supported models

Camera series	Model
Alvium 1500	1500 C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	1800 C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-320 VSWIR, C-500m/c, C-507m/c, C-507m/c Pol, C-508m/c, C-508m/c Pol, C-510m/c, C-511 m/c, C-530 VSWIR, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-203m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-320 VSWIR, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-507m/c Pol, FP3-508m/c, FP3-508m/c Pol, FP3-510m/c, FP3-511 m/c, FP3-530 VSWIR, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-203m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-320 VSWIR, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-507m/c Pol, GM2-508m/c, GM2-508m/c Pol,, GM2-510m/c, GM2-511 m/c, GM2-530 VSWIR, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

### New model

No new models were added

### Changed features

The bandwidth per lane was increased from 1.051 GBit/s to 1.425 GBit/s. Depending on the specific model, maximum or ROI frame rates can be increased or less lanes can be used than before.

### New controls

- Heartbeat to control the frequency of the CSI-2 link.
- Sensor binning adds to the existing digital binning.

### Resolved issues

Alvium ID	Affected models	Description
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.

Table 5: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
917	X-210m/c, X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c in <b>GenICam for CSI-2 Access</b> mode	Scenario: <b>ExposureActiveMode</b> is set to <i>FirstLine</i> for controlling a strobe light. This is saved in a user set.  Issue: When this user set is loaded, the settings are displayed correctly, but the output behaves as if <b>ExposureActiveMode</b> is set to <i>FlashWindow</i> , not to <i>FirstLine</i> .
931	All models in <b>GenICam for CSI-2 Access</b> mode	If values for <b>OffsetX</b> and <b>OffsetY</b> are changed, the position of a previously selected auto mode region is shifted.
1211	X-500m/c, X-501m/c NIR	When using single frame capture with long exposure times, the camera crashes.
1253	All models in <b>GenICam for CSI-2 Access</b> mode	Setting start values for counters does not behave as defined by the SFNC, making counters difficult to use.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <i>ExposureActive</i> for Line1, the <i>ExposureActive</i> signal not enabled for Line1, but for Line0.
1323	All	Issue: Auto white balance may create wrong color settings when the camera is pointed at dark objects. Wrong settings remain visible until auto white balance switches to correct values.  Solution: The cycle time for auto white balance has been reduced.
1375	All models in <b>GenICam for CSI-2 Access</b> mode	Counters behave unexpectedly. For example, lines change or counting stops.
1378	All models in <b>GenICam for CSI-2 Access</b> mode	<b>LineStatusAll</b> outputs wrong values for the current use of GPIOs.
1434	All models in <b>GenICam for CSI-2 Access</b> mode	Proper behavior: The trigger mode for Alvium cameras can be changed after the <code>cam.StartCapture()</code> command has been executed when using the Vimba X TL.  Issue: The trigger mode can be changed only after the capture has been stopped by <code>camera.EndCapture()</code> .
1483	All	After it has received a <b>DeviceReset</b> command, the camera does not reboot properly.
1502	All	Registers for <b>AcquisitionStart</b> and <b>AcquisitionStop</b> always stay at <b>1</b> , independent of <b>AcquisitionStatus</b> .

Table 5: Resolved issues (sheet 2 of 2)

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 6: Known issues

## FW 00.13.02.46198eb2

Date of document release: 2024-Sep-27

### Supported models

Camera series	Model
Alvium 1800	Alvium 1800 C-320 VSWIR, Alvium 1800 C-530 VSWIR

Table 7: Supported models

### New model

Alvium 1800 C-320 VSWIR, 1800 C-530 VSWIR

### Changed or new features

Nothing was changed.

### Resolved issues

No known issue shave been resolved.

### Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <b>ExposureActive</b> for Line1, the <b>ExposureActive</b> signal not enabled for Line1, but for Line0.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 8: Known issues

## FW 00.13.00.cd808735

Date of document release: 2024-May-07

### Supported models

Camera series	Model
Alvium 1800	Alvium 1800 C-240m/c
Alvium FP3 Coax/STP	Alvium FP3-240m/c
Alvium GM2 Coax/STP	Alvium GM2-240m/c

Table 9: Supported models

### New models

No new models were added.

### Changed or new features

Nothing was changed.

### Resolved issues

Alvium ID	Affected models	Description
1332	X-240m/c	Cameras stop streaming occasionally.

Table 10: Resolved issues

### Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <b>ExposureActive</b> for Line1, the <b>ExposureActive</b> signal not enabled for Line1, but for Line0.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 11: Known issues

## FW 00.13.00.e83c9689 | 2nd update

Date of **2nd document update**: 2024-Feb-26

Date of 1st document update: 2024-Jan-04

Date of document release: 2023-Dec-29



### Alvium X-240 models

Contents for Alvium X-240m/c models were removed with the document update for [FW 00.13.00.cd808735](#) on 2024-May-07.

## Supported models

Camera series	Model
Alvium 1500	1500 C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	1800 C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C- <b>507m/c Pol</b> , C-508m/c, C- <b>508m/c Pol</b> , C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-203m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3- <b>507m/c Pol</b> , FP3-508m/c, <b>FP3-508m/c Pol</b> , FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-203m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, <b>GM2-507m/c Pol</b> , GM2-508m/c, <b>GM2-508m/c Pol</b> , GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 12: Supported models

## New models

**Alvium X-507m/c Pol and X-508m/c Pol**

## Changed features

- Alvium X-1240m/c and X-2050m/c: For triggered acquisition in rolling shutter mode, maximum frame rates have been increased from ~50% to >99% of the values reached in freerun mode.
- Minimum exposure times have been reduced for all Alvium CSI-2 models, except for X-120, -210, -500, -501 NIR, -1240, and -2050 models.
- GenICam for CSI-2 Access\***: Sensor binning has been added for X-158m, -203m, -291m, and -508m.
- GenICam for CSI-2 Access\***: Removed `IntensityControllerOutliersBright` and `IntensityControllerOutliersDark` from `AutoModeControl`.

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## New features (GenICam for CSI-2 Access)\*

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

- `ChunkDataControl` features

- **DeviceTemperatureStatus** as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- **LensShadingCorrection** features to compensate for a decrease in brightness towards the image corners
- **LUTLoadAll** and **LUTSaveAll** for 1-step access to RGB LUTs

## Resolved issues

Alvium ID	Affected models	Description
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for the <b>Height</b> and <b>OffsetY</b> .
1171	Alvium X-2050m/c	If user sets are loaded where <b>ReverseY = True</b> and <b>OffsetY</b> is configured, the output image is distorted.

Table 13: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <b>ExposureActive</b> for Line1, the <b>ExposureActive</b> signal not enabled for Line1, but for Line0.
<b>1324</b>	<b>X-500m/c, X-501 NIR, X-1240m/c, X-2050m/c</b>	<b>This applies with AcquisitionMode set to MultiFrame: If cameras have been triggered by AcquisitionStart, the streaming stops when parameters are changed.</b>
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 14: Known issues

## FW 00.13.00.e83c9689 | 1st update

Date of **1st document update**: 2024-Jan-04

Date of document release: 2023-Dec-29

### Supported models

Camera series	Model
Alvium 1500	1500 C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	1800 C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-203m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-508m/c, FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-203m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-508m/c, GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 15: Supported models

### New models

No new models were added.

### Changed features

- Alvium X-1240m/c and X-2050m/c: For triggered acquisition in rolling shutter mode, maximum frame rates have been increased from ~50% to >99% of the values reached in freerun mode.
- Minimum exposure times have been reduced for all Alvium CSI-2 models, except for X-120, -210, -500, -501 NIR, -1240, and -2050 models.**
- GenICam for CSI-2 Access\***: Sensor binning has been added for X-158m, **-203m**, -240m, -291m, and -508m.
- GenICam for CSI-2 Access\***: Removed IntensityControllerOutliersBright and IntensityControllerOutliersDark from AutoModeControl.

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

### New features (GenICam for CSI-2 Access)\*

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

- ChunkDataControl features
- DeviceTemperatureStatus as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- LensShadingCorrection features to compensate for a decrease in brightness towards the image corners
- LUTLoadAll and LUTSaveAll for 1-step access to RGB LUTs

## Resolved issues

Alvium ID	Affected models	Description
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for the <b>Height</b> and <b>OffsetY</b> .
1171	Alvium X-2050m/c	If user sets are loaded where <b>ReverseY = True</b> and <b>OffsetY</b> is configured, the output image is distorted.

Table 16: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <b>ExposureActive</b> for Line1, the <b>ExposureActive</b> signal not enabled for Line1, but for Line0.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 17: Known issues

## FW 00.13.00.e83c9689

Date of document release: 2023-Dec-29

### Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-203m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-508m/c, FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-203m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-508m/c, GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 18: Supported models

### New models

No new models were added.

### Changed features

- Alvium X-1240m/c and X-2050m/c: For triggered acquisition in rolling shutter mode, maximum frame rates have been increased from ~50% to >99% of the values reached in freerun mode.
- GenICam for CSI-2 Access\***: Sensor binning has been added for X-158m, -240m, -291m, and -508m.
- GenICam for CSI-2 Access\***: Removed `IntensityControllerOutliersBright` and `IntensityControllerOutliersDark` from `AutoModeControl`.

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

### New features (GenICam for CSI-2 Access)\*

- `ChunkDataControl` features
- `DeviceTemperatureStatus` as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- `LensShadingCorrection` features to compensate for a decrease in brightness towards the image corners
- `LUTLoadAll` and `LUTSaveAll` for 1-step access to RGB LUTs

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## Resolved issues

Alvium ID	Affected models	Description
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for the <b>Height</b> and <b>OffsetY</b> .
1171	Alvium X-2050m/c	If user sets are loaded where <b>ReverseY = True</b> and <b>OffsetY</b> is configured, the output image is distorted.

Table 19: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1307	Models in <b>GenICam for CSI-2 Access</b> mode	When <b>LineSource</b> is selected to be <b>ExposureActive</b> for Line1, the <b>ExposureActive</b> signal not enabled for Line1, but for Line0.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 20: Known issues

## FW 00.12.00.00611a22 | 4th update

Date of **4th document update**: 2023-Nov-21

Date of 3rd document update: 2023-Sep-27

Date of 2nd document update: 2023-Aug-02

Date of 1st document update: 2023-Jul-04

Date of document release: 2023-Jun-15



### Removed contents

- Alvium X-131m/c,-192m/c models were not released.
- 12-bit pixel formats for cameras with 10-bit sensors are already added with [FW 00.08.00.6727174b](#) on page 30.
- 12-bit Packed pixel formats were added only for Alvium G1 and G5.

## Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-203m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-203m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-508m/c, FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-203m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-508m/c, GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 21: Supported models

## New models

Alvium X-203m/c models

## Changed features (GenICam for CSI-2 Access)\*

- Added **Sensor** option for **BinningSelector**. The existence of this option depends on the sensor. Please see the Alvium CSI Cameras User Guide or model data sheets.

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## New features (GenICam for CSI-2 Access)\*

- Support for mandatory features according to GenICam SFNC V2.7
- LutValueAll** to write a complete LUT in one access

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of <b>0</b> , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of <b>0</b> .
1041	X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c	DPC (defect pixel correction) is not working when <b>ReverseY</b> is turned on: For rolling shutter models, defect pixels may appear after turning on <b>ReverseY</b> .

Table 22: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 23: Known issues

## FW 00.12.00.00611a22 | 3rd update

Date of **3rd document update**: 2023-Sep-27

Date of 2nd document update: 2023-Aug-02

Date of 1st document update: 2023-Jul-04

Date of document release: 2023-Jun-15

### Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, <b>C-131m/c</b> , C-158m/c, <b>C-192m/c</b> , <b>C-203m/c</b> , C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/STP	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, <b>FP3-131m/c</b> , FP3-158m/c, <b>FP3-192m/c</b> , <b>FP3-203m/c</b> , FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-508m/c, FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/STP	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, <b>GM2-131m/c</b> , GM2-158m/c, <b>GM2-192m/c</b> , <b>GM2-203m/c</b> , GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-508m/c, GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 24: Supported models

### New models

**Alvium X-131m/c, -192m/c, -203m/c models**

### Changed features (GenICam for CSI-2 Access)\*

- Added **Sensor** option for **BinningSelector**. The existence of this option depends on the sensor. Please see the Alvium CSI Cameras User Guide or model data sheets.
- Added 12-bit sensor formats for cameras with 10-bit sensors for PixelFormat.**
- Added Mono12Packed and BayerGR12Packed (1800 C-500c) or BayerRG12Packed (other models) for PixelFormat.**

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

### New features (GenICam for CSI-2 Access)\*

- Support for mandatory features according to GenICam SFNC V2.7
- LutValueAll** to write a complete LUT in one access

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of <b>0</b> , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of <b>0</b> .
1041	X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c	DPC (defect pixel correction) is not working when <b>ReverseY</b> is turned on: For rolling shutter models, defect pixels may appear after turning on <b>ReverseY</b> .

Table 25: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 26: Known issues

## FW 00.12.00.00611a22 | 2nd update

Date of **2nd document update**: 2023-Aug-02

Date of 1st document update: 2023-Jul-04

Date of document release: 2023-Jun-15

### Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-895m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax/ <b>STP</b>	FP3-030 VSWIR, FP3-040m/c, FP3-052m/c, FP3-130 VSWIR, FP3-158m/c, FP3-210m/c, FP3-234m/c, FP3-235m/c, FP3-240m/c, FP3-291m/c, FP3-319m/c, FP3-500m/c, FP3-501m/c NIR, FP3-507m/c, FP3-508m/c, FP3-510m/c, FP3-511 m/c, FP3-811 m/c, FP3-812 UV, FP3-895m/c, FP3-1236m/c, FP3-1240m/c, FP3-1242m/c, FP3-1620m/c, FP3-2040m/c, FP3-2050m/c, FP3-2460m/c
Alvium GM2 Coax/ <b>STP</b>	GM2-030 VSWIR, GM2-040m/c, GM2-052m/c, GM2-130 VSWIR, GM2-158m/c, GM2-210m/c, GM2-234m/c, GM2-235m/c, GM2-240m/c, GM2-291m/c, GM2-319m/c, GM2-500m/c, GM2-501m/c NIR, GM2-507m/c, GM2-508m/c, GM2-510m/c, GM2-511 m/c, GM2-811 m/c, GM2-812 UV, GM2-895m/c, GM2-1236m/c, GM2-1240m/c, GM2-1242m/c, GM2-1620m/c, GM2-2040m/c, GM2-2050m/c, GM2-2460m/c

Table 27: Supported models

### New models

**Alvium FP3/GM2 STP models**

### Changed features

- Added **Sensor** option for **BinningSelector**. The existence of this option depends on the sensor. Please see the Alvium CSI Cameras User Guide or model data sheets. (**GenICam for CSI-2 Access**)\*

### New features

- Support for mandatory features according to GenICam SFNC V2.7 (**GenICam for CSI-2 Access**)\*
- LutValueAll** to write a complete LUT in one access (**GenICam for CSI-2 Access**)\*

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

### Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.

Table 28: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of <b>0</b> , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of <b>0</b> .
1041	X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c	DPC (defect pixel correction) is not working when <b>ReverseY</b> is turned on: For rolling shutter models, defect pixels may appear after turning on <b>ReverseY</b> .

Table 28: Resolved issues (sheet 2 of 2)

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 29: Known issues

## FW 00.12.00.00611a22 | 1st update

Date of **1st document update**: 2023-Jul-04

Date of document release: 2023-Jun-15

### Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, <b>C-895m/c</b> , C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax	FP3-030 VSWIR Coax, FP3-040m/c Coax, FP3-052m/c Coax, FP3-130 VSWIR Coax, FP3-158m/c Coax, FP3-210m/c Coax, FP3-234m/c Coax, FP3-235m/c Coax, FP3-240m/c Coax, FP3-291m/c Coax, FP3-319m/c Coax, FP3-500m/c Coax, FP3-501m/c NIR Coax, FP3-507m/c Coax, FP3-508m/c Coax, FP3-510m/c Coax, FP3-511 m/c Coax, FP3-811 m/c Coax, FP3-812 UV Coax, <b>FP3-895m/c Coax</b> , FP3-1236m/c Coax, FP3-1240m/c Coax, FP3-1242m/c Coax, FP3-1620m/c Coax, FP3-2040m/c Coax, FP3-2050m/c Coax, FP3-2460m/c Coax
Alvium GM2 Coax	GM2-030 VSWIR Coax, GM2-040m/c Coax, GM2-052m/c Coax, GM2-130 VSWIR Coax, GM2-158m/c Coax, GM2-210m/c Coax, GM2-234m/c Coax, GM2-235m/c Coax, GM2-240m/c Coax, GM2-291m/c Coax, GM2-319m/c Coax, GM2-500m/c Coax, GM2-501m/c NIR Coax, GM2-507m/c Coax, GM2-508m/c Coax, GM2-510m/c Coax, GM2-511 m/c Coax, GM2-811 m/c Coax, GM2-812 UV Coax, <b>GM2-895m/c Coax</b> , GM2-1236m/c Coax, GM2-1240m/c Coax, GM2-1242m/c Coax, GM2-1620m/c Coax, GM2-2040m/c Coax, GM2-2050m/c Coax, GM2-2460m/c Coax

Table 30: Supported models

### New models

**Alvium X-895m/c**

### Changed features

- Added **Sensor** option for **BinningSelector**. The existence of this option depends on the sensor. Please see the Alvium CSI Cameras User Guide or model data sheets. (**GenICam for CSI-2 Access**)\*

### New features

- Support for mandatory features according to GenICam SFNC V2.7 (**GenICam for CSI-2 Access**)\*
- LutValueAll** to write a complete LUT in one access (**GenICam for CSI-2 Access**)\*

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

## Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of <b>0</b> , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of <b>0</b> .
1041	X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c	DPC (defect pixel correction) is not working when <b>ReverseY</b> is turned on: For rolling shutter models, defect pixels may appear after turning on <b>ReverseY</b> .

Table 31: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 32: Known issues

## FW 00.12.00.00611a22

Date of document release: 2023-Jun-15

### Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax	FP3-030 VSWIR Coax, FP3-040m/c Coax, FP3-052m/c Coax, FP3-130 VSWIR Coax, FP3-158m/c Coax, FP3-210m/c Coax, FP3-234m/c Coax, FP3-235m/c Coax, FP3-240m/c Coax, FP3-291m/c Coax, FP3-319m/c Coax, FP3-500m/c Coax, FP3-501m/c NIR Coax, FP3-507m/c Coax, FP3-508m/c Coax, FP3-510m/c Coax, FP3-511 m/c Coax, FP3-811 m/c Coax, FP3-812 UV Coax, FP3-1236m/c Coax, FP3-1240m/c Coax, FP3-1242m/c Coax, FP3-1620m/c Coax, FP3-2040m/c Coax, FP3-2050m/c Coax, FP3-2460m/c Coax
Alvium GM2 Coax	GM2-030 VSWIR Coax, GM2-040m/c Coax, GM2-052m/c Coax, GM2-130 VSWIR Coax, GM2-158m/c Coax, GM2-210m/c Coax, GM2-234m/c Coax, GM2-235m/c Coax, GM2-240m/c Coax, GM2-291m/c Coax, GM2-319m/c Coax, GM2-500m/c Coax, GM2-501m/c NIR Coax, GM2-507m/c Coax, GM2-508m/c Coax, GM2-510m/c Coax, GM2-511 m/c Coax, GM2-811 m/c Coax, GM2-812 UV Coax, GM2-1236m/c Coax, GM2-1240m/c Coax, GM2-1242m/c Coax, GM2-1620m/c Coax, GM2-2040m/c Coax, GM2-2050m/c Coax, GM2-2460m/c Coax

Table 33: Supported models

### New models

No new models were added.

### Changed features

- Added **Sensor** option for **BinningSelector**. The existence of this option depends on the sensor. Please see the Alvium CSI Cameras User Guide or model data sheets. (**GenICam for CSI-2 Access**)\*

### New features

- Support for mandatory features according to GenICam SFNC V2.7 (**GenICam for CSI-2 Access**)\*
- LutValueAll** to write a complete LUT in one access (**GenICam for CSI-2 Access**)\*

\* Available with all Alvium 1800 C models and the corresponding FP3/GM2 Coax models

### Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.

Table 34: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of <b>0</b> , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of <b>0</b> .
1041	X-500m/c, X-501m/c NIR, X-1240m/c, X-2050m/c	DPC (defect pixel correction) is not working when <b>ReverseY</b> is turned on: For rolling shutter models, defect pixels may appear after turning on <b>ReverseY</b> .

Table 34: Resolved issues (sheet 2 of 2)

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
774	Models in <b>GenICam for CSI-2 Access</b> mode	Streaming is not possible with changed user set. As a workaround, we recommend to load default user sets. This issue does <b>only</b> occur with Nano 4GB Board and Driver 4.6.x.
1117	X-510m/c, X-511m/c, X-811m/c, X-812 UV, X-1242m/c, X-1620m/c, X-2040m/c, X-2460m/c models in <b>GenICam for CSI-2 Access</b> mode	Width cannot be adjusted for both, digital binning and sensor binning. Digital binning works correctly in <b>Direct Register Access</b> mode and in <b>Video4Linux Access</b> mode.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return <b>0</b> , incomplete or dropped frames cannot be detected.

Table 35: Known issues

## FW 00.11.00.9cf0c21e | 2nd update

Date of **2nd document update**: 2023-Apr-21

Date of document release: 2022-Nov-14



### Added contents

Support for X-234m/c was added on 2024-Nov-27 with an updated version for the FW 00.14.00 release ([FW 00.14.00.baba1e3c](#) on page 3).

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c
Alvium FP3 Coax	FP3-030 VSWIR Coax, FP3-040m/c Coax, FP3-052m/c Coax, FP3-130 VSWIR Coax, FP3-158m/c Coax, FP3-210m/c Coax, FP3-234m/c Coax, FP3-235m/c Coax, FP3-240m/c Coax, FP3-291m/c Coax, FP3-319m/c Coax, FP3-500m/c Coax, FP3-501m/c NIR Coax, FP3-507m/c Coax, FP3-508m/c Coax, FP3-510m/c Coax, FP3-511 m/c Coax, FP3-811 m/c Coax, FP3-812 UV Coax, FP3-1236m/c Coax, FP3-1240m/c Coax, FP3-1242m/c Coax, FP3-1620m/c Coax, FP3-2040m/c Coax, FP3-2050m/c Coax, FP3-2460m/c Coax
Alvium GM2 Coax	GM2-030 VSWIR Coax, GM2-040m/c Coax, GM2-052m/c Coax, GM2-130 VSWIR Coax, GM2-158m/c Coax, GM2-210m/c Coax, GM2-234m/c Coax, GM2-235m/c Coax, GM2-240m/c Coax, GM2-291m/c Coax, GM2-319m/c Coax, GM2-500m/c Coax, GM2-501m/c NIR Coax, GM2-507m/c Coax, GM2-508m/c Coax, GM2-510m/c Coax, GM2-511 m/c Coax, GM2-811 m/c Coax, GM2-812 UV Coax, GM2-1236m/c Coax, GM2-1240m/c Coax, GM2-1242m/c Coax, GM2-1620m/c Coax, GM2-2040m/c Coax, GM2-2050m/c Coax, GM2-2460m/c Coax

Table 36: Supported models

## New models

**Alvium X-234m/c, X-510m/c**

**Alvium FP3 Coax:** FP3-030 VSWIR Coax, FP3-040m/c Coax, FP3-052m/c Coax, FP3-130 VSWIR Coax, FP3-158m/c Coax, FP3-210m/c Coax, FP3-234m/c Coax, FP3-235m/c Coax, FP3-240m/c Coax, FP3-291m/c Coax, FP3-319m/c Coax, FP3-500m/c Coax, FP3-501m/c NIR Coax, FP3-507m/c Coax, FP3-508m/c Coax, FP3-510 m/c Coax, FP3-511 m/c Coax, FP3-811 m/c Coax, FP3-812 UV Coax, FP3-1236m/c Coax, FP3-1240m/c Coax, FP3-1242m/c Coax, FP3-1620m/c Coax, FP3-2040m/c Coax, FP3-2050m/c Coax, FP3-2460m/c Coax

**Alvium GM-2 Coax:** GM2-030 VSWIR Coax, GM2-040m/c Coax, GM2-052m/c Coax, GM2-130 VSWIR Coax, GM2-158m/c Coax, GM2-210m/c Coax, GM2-234m/c Coax, GM2-235m/c Coax, GM2-240m/c Coax, GM2-291m/c Coax, GM2-319m/c Coax, GM2-500m/c Coax, GM2-501m/c NIR Coax, GM2-507m/c Coax, GM2-508m/c Coax, GM2-510m/c Coax, GM2-511 m/c Coax, GM2-811 m/c Coax, GM2-812 UV Coax, GM2-1236m/c Coax, GM2-1240m/c Coax, GM2-1242m/c Coax, GM2-1620m/c Coax, GM2-2040m/c Coax, GM2-2050m/c Coax, GM2-2460m/c Coax

## Changed features

- Increments for Offset X and Offset Y for camera models with Sony IMX global shutter sensor

- Reduced options for SoftwareSignalSelector (**GenICam for CSI-2 Access**)\*

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050 and the corresponding FP3/GM2 Coax models

## New features

Available with **GenICam for CSI-2 Access**:\*

- Counter features in the CounterAndTimerControl category
- LineDebounceDuration and LineDebounceMode in the DeviceControl category

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050 and the corresponding FP3/GM2 Coax models

## Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.

Table 37: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	X-210m/c, X-500m/c, X-501m/c, X-1240m/c, X-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

X = Placeholder for 1500 C, 1800 C, FP3 Coax, or GM2 Coax where models are available.

Table 38: Known issues

## FW 00.11.00.9cf0c21e | 1st update

Date of **document update**: 2022-Dec-19

Date of document release: 2022-Nov-14

**Note**: Data of this note entry is outdated. Please see [FW 00.11.00.9cf0c21e | 2nd update](#) on page 23.

### Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 39: Supported models

### New models

Alvium 1800 C-234m/c, -510m/c

### Changed features

- Increments for Offset X and Offset Y for camera models with Sony IMX global shutter sensor
- Reduced options for SoftwareSignalSelector (**GenICam for CSI-2 Access**)\*

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050

### New features

Available with **GenICam for CSI-2 Access**:\*

- Counter features in the CounterAndTimerControl category
- LineDebounceDuration and LineDebounceMode in the DeviceControl category

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050

### Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.

Table 40: Resolved issues

### Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.

Table 41: Known issues (sheet 1 of 2)

Alvium ID	Affected models	Description
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <code>StatFramesCRCError</code> , <code>StatFramesIncomplete</code> , <code>StatFramesUnderrun</code> in the <code>StreamInformation/Statistics</code> category return 0, incomplete or dropped frames cannot be detected.

Table 41: Known issues (sheet 2 of 2)

## FW 00.11.00.9cf0c21e

Date of document release: 2022-Nov-14

**Note:** Data of this note entry is outdated. Please see [FW 00.11.00.9cf0c21e | 1st update](#) on page 25.

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-234m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-510m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 42: Supported models

## New models

Alvium 1800 C-234m/c, -510m/c

## Changed features

- Increments for Offset X and Offset Y for camera models with Sony IMX global shutter sensor
- Reduced options for SoftwareSignalSelector (**GenICam for CSI-2 Access**)\*

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050

## New features

Available with **GenICam for CSI-2 Access**:\*

- **To be removed:** ActionControl category
- Counter features in the CounterAndTimerControl category
- LineDebounceDuration and LineDebounceMode in the DeviceControl category

\* Available with Alvium 1800 C-234, C-235, C-500, C-507, C-511, C-1236, C-2050

## Resolved issues

Alvium ID	Affected models	Description
806	Color models in <b>GenICam for CSI-2 Access</b> mode	Error in color transformation has been fixed.

Table 43: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 44: Known issues

## FW 00.10.00.6c9062b1 | update

Date of **note updates**: 2022-Aug-16

Date of document release: 2022-Jul-20

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 45: Supported models

## New models

Alvium 1800 C-235m/c, C-812 UV

## Changed features

In previous firmware versions, Black Level values were adjusted to the pixel formats: 8-bit values for 8-bit pixel formats, 10 for 10, and 12 for 12. With this firmware update, the representation of Black Level is independent from the pixel format: 12-bit values are used for all pixel formats. Therefore, you may have to adjust your settings used with previous firmware versions.

The maximum value for Gain was increased from 24 to 48 dB for all models with Sony IMX global shutter sensors. **Added information**: For Alvium 1800 C-030 VSWIR and C-130 VSWIR, the maximum Gain value was increased to 42 dB.

**Added information**: FPNC was disabled for Alvium 1800 C-030 VSWIR and 1800 C-130 VSWIR models.

## Resolved issues

Alvium ID	Affected models	Description
721	Models in <b>GenICam for CSI-2 Access</b> mode	<b>TestPattern</b> has been visible on CSI-2 cameras, but the feature was not working properly. The feature has been removed.

Table 46: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 47: Known issues

## FW 00.10.00.6c9062b1

Date of document release: 2022-Jul-20

**Note:** Data of this note entry is outdated. Please see [FW 00.10.00.6c9062b1 | update](#) on page 27.

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-235m/c, C-240m/c, C-291m/c, C-319m/c, C-500m/c, C-507m/c, C-508m/c, C-511 m/c, C-811 m/c, C-812 UV, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 48: Supported models

## New models

Alvium 1800 C-235m/c, C-812 UV

## Changed features

In previous firmware versions, Black Level values were adjusted to the pixel formats: 8-bit values for 8-bit pixel formats, 10 for 10, and 12 for 12. With this firmware update, the representation of Black Level is independent from the pixel format: 12-bit values are used for all pixel formats. Therefore, you may have to adjust your settings used with previous firmware versions.

The maximum value for Gain was increased from 24 to 48 dB for all models with Sony IMX global shutter sensors.

## New features

Available with Alvium 1800 C-500, C-507, C-511, C-1236, C-2050, using **GenICam for CSI-2 Access**:

- Serial Hub subcategory for I/O control by UART
- Software Signal Control subcategory to enable external devices to trigger actions within the camera by software commands (The features in this category are still in the testing phase and not fully validated.)

## Resolved issues

Alvium ID	Affected models	Description
721	Models in <b>GenICam for CSI-2 Access</b> mode	<b>TestPattern</b> has been visible on CSI-2 cameras, but the feature was not working properly. The feature has been removed.

Table 49: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 50: Known issues

## FW 00.08.01.13f227a4

Date of document release: 2022-May-16

## Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-500m/c

Table 51: Supported models

## New models

No new models were added.

## New features

No features were added.

## Resolved issues

Alvium ID	Affected models	Description
775	1500 C-120c, 1500 C-210c, 1500 C-500c, 1500 C-501c NIR, 1800 C-500c	Wrong <b>AutoWhiteBalance</b> measurement was fixed.

Table 52: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
721	Models in <b>GenICam for CSI-2 Access</b> mode	<b>TestPattern</b> is visible on CSI-2 cameras, but the feature is not working properly. If the test pattern value is changed, the embedded board must be rebooted twice before the camera can be operated again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 53: Known issues

## FW 00.08.00.6727174b

Date of document release: 2022-Mar-21

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-052m/c, C-130 VSWIR, C-158m/c, C-240m/c, C-291m/c, C-319m/c, C-507m/c, C-508m/c, C-500m/c, C-511 m/c, C-811 m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 54: Supported models

## New models

Alvium 1800 C-052m/c, C-291m/c, C-500m/c

## New features



### Contents updated subsequently

The information on support for 12-bit pixel formats for cameras with 10-bit sensors was added on 2023-Nov-21.

### GenICam for CSI-2 Access for 1800 C-500, C-507, C-511, C-1236, C-2050

This includes the following features:

- 12-bit for **PixelFormat** for cameras with 10-bit sensors
- Auto Mode Regions feature group
- Contrast
- Convolution filters for image processing
- Counter and Timer Control category

- Digital binning
- Exposure Active Mode
- Look-up table (LUT)
- Shutter Mode
- Stream Information features for MIPI CSI-2
- Transport Layer Control: Additional features for CSI-2
- Triggering: Additional features and options
- User Sets

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
721	Models in <b>GenICam for CSI-2 Access</b> mode	<b>TestPattern</b> is visible on CSI-2 cameras, but the feature is not working properly. If the test pattern value is changed, the embedded board must be rebooted twice before the camera can be operated again.
617	Models in <b>GenICam for CSI-2 Access</b> mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.
OCT-2247	Models in <b>GenICam for CSI-2 Access</b> mode	Features <b>StatFramesCRCError</b> , <b>StatFramesIncomplete</b> , <b>StatFramesUnderrun</b> in the <b>StreamInformation/Statistics</b> category return 0, incomplete or dropped frames cannot be detected.

Table 55: Known issues

## FW 00.07.00.81db3896

Date of document release: 2021-Dec-10

**Note:** Binning controls were stated as new features in the version from 2021-Dec-10 of this document. This information had to be removed from the document because the current camera driver does not support binning.

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-030 VSWIR, C-040m/c, C-130 VSWIR, C-158m/c, C-240m/c, C-319m/c, C-507m/c, C-508m/c, C-511 m/c, C-811 m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 56: Supported models

## New models

Alvium 1800 C-030 VSWIR, C-130 VSWIR

## New features

- Configurable I2C address
- Monochrome image output from color models

## Resolved issues

Alvium ID	Affected models	Description
395	All	After <b>Acquisition Stop</b> has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if <b>Exposure Auto</b> is enabled. The camera must be rebooted.

Table 57: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.

Table 58: Known issues

## FW 00.06.00.35992

Date of document release: 2021-Aug-13

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c, C-501m/c NIR
Alvium 1800	C-040m/c, C-158m/c, C-240m/c, C-319m/c, C-507m/c, C-508m/c, C-511 m/c, C-811 m/c, C-1236m/c, C-1240m/c, C-1242m/c, C-1620m/c, C-2040m/c, C-2050m/c, C-2460m/c

Table 59: Supported models

## New models

Alvium 1500 C-501m/c NIR, 1800 C-511, C-811, C-1242, C-1620, C-2040

## New features

No features were added.

## Resolved issues

Alvium ID	Affected models	Description
553	1800 C-2460m/c	Calculated frame rates for small ROIs are not exact.

Table 60: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
395	All	After <b>Acquisition Stop</b> has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if <b>Exposure Auto</b> is enabled. The camera must be rebooted.

Table 61: Known issues

## FW 00.04.00.34658

Date of document release: 2021-May-03

## Supported models

Camera series	Model
Alvium 1500	C-120m/c, C-210m/c, C-500m/c
Alvium 1800	C-040m/c, C-158m/c, C-240m/c, C-319m/c, C-507m/c, C-508m/c, C-1236m/c, C-1240m/c, C-2050 m/c, C-2460m/c

Table 62: Supported models

## New models

Alvium 1800 C-2460m/c

## New features

- Exposure Active controls
- Line Configuration for I/O lines
- Line Status for I/O lines

## Resolved issues

Alvium ID	Affected models	Description
387	1500 C-120m/c, 1500 C-210m/c, 1500 C-500m/c, 1800 C-2050m/c	When the ROI is reduced during streaming, the frame rate remains the same. The correct frame rate can be adjusted if streaming is stopped and the pixel format is selected again.

Table 63: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
395	All	After <b>Acquisition Stop</b> has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if <b>Exposure Auto</b> is enabled. The camera must be rebooted.
553	1800 C-2460m/c	Calculated frame rates for small ROIs are not exact.

Table 64: Known issues

## FW 00.03.00.31919

Date of document release: 2020-Dec-08

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c
Alvium 1800	C-040m/c, C-158m/c, C-240m/c, C-319m/c, C-507m/c, C-508m/c, C-1236m/c, C-1240m/c, C-2050 m/c

Table 65: Supported models

## New models

No models were added.

## New features

- Exposure Auto limits (minimum and maximum values)
- Gain Auto limits (minimum and maximum values)
- Intensity Auto controls (precedence and target value controls)
- Frame rate control
- Sensor timing optimizations increase maximum frame rates for selected models
- Triggering over CSI-2 (Frame Start)
- Updated default values for auto white balance
- Fixed pattern noise correction (FPNC) support for all models, except Alvium 1800 C-2050
- Defect pixel correction (DPC, factory calibrated) for 1800 C-2050m/c models

## Resolved issues

Alvium ID	Affected models	Description
299	1800 C-1236m/c, 1800 C-1240m/c, 1800 C-2050m/c	Fixed issue with <b>Acquisition Stop</b> command.

Table 66: Resolved issues

## Known issues

Alvium ID	Affected models	Description
338	1500 C-210m/c, 1500 C-500m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , no image is transmitted.
387	1500 C-120m/c, 1500 C-210m/c, 1500 C-500m/c, 1800 C-2050m/c	When the ROI is reduced during streaming, the frame rate remains the same. The correct frame rate can be adjusted if streaming is stopped and the pixel format is selected again.
395	All	After <b>Acquisition Stop</b> has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if <b>Exposure Auto</b> is enabled. The camera must be rebooted.

Table 67: Known issues

## FW 00.02.00.29974

Date of document release: 2020-Jul-23

## Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c
Alvium 1800	C-040m/c, C-158m/c, C-240m/c, C-319m/c, C-507m/c, C-508m/c, C-1236m/c, C-1240m/c, C-2050 m/c

Table 68: Supported models

## New models

Alvium 1800 C-240m/c, C-508m/c, C-1240m/c

## New features

No features were added.

## Resolved issues

No issues were fixed.

## Known issues

Alvium ID	Affected models	Description
299	1800 C-1236m/c, 1800 C-1240m/c, 1800 C-2050m/c	<b>Acquisition Stop</b> command during sensor readout can stop the camera.
338	1500 C-210m/c, 1500 C-500m/c, 1800 C-1240m/c, 1800 C-2050m/c	If <b>Acquisition Stop</b> is executed shortly after <b>Acquisition Start</b> , the captured frame is discarded.

Table 69: Known issues

## FW 00.01.03.29478

Date of document release: 2020-May-07

### Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c
Alvium 1800	C-040m/c, C-158m/c, C-319m/c, C-507m/c, C-1236m/c, C-2050 m/c

Table 70: Supported models

### New models

Alvium 1800 C-319m/c, C-507m/c, C-1236m/c, C-2050m/c

### New features

Defect pixel correction (DPC, factory calibrated, except for 1800 C-2050m/c models)

### Resolved issues

Alvium ID	Affected models	Description
49	All	Fixed first black image in qv4l2.
79	All	Fixed issues with <b>Offset X</b> for <b>Offset Y</b> .

Table 71: Resolved issues

### Known issues

Alvium ID	Affected models	Description
299	1800 C-1236m/c, 1800 C-1240m/c, 1800 C-2050m/c	<b>Acquisition Stop</b> command during sensor readout can stop the camera.
395	All	After <b>Acquisition Stop</b> has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if <b>Exposure Auto</b> is enabled. The camera must be must be rebooted.

Table 72: Known issues

## FW 00.01.02.28100

Date of document release: 2019-Dec-03

### Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-210m/c, C-500m/c
Alvium 1800	C-040m/c, C-158m/c

Table 73: Supported models

### New models

Alvium 1500 C-210m/c

Alvium 1800 C-040m/c, C-158m/c

### New features

- Gamma
- Saturation
- ROI: Adjustable width
- Mirror image

### Resolved issues

No issues were fixed.

### Known issues

Alvium ID	Affected models	Description
49	All	When streaming with qv4L2, the first image is black.
79	All	Large values for <b>Offset X</b> for <b>Offset Y</b> may not work properly.

Table 74: Known issues

## FW 00.01.00.26405

Date of document release: 2019-Jul-01

### Supported models

Camera series	Model
Alvium 1500	C-050m/c, C-120m/c, C-500m/c

Table 75: Supported models

### New models

Initial commercial release of Alvium 1500 C-050m/c, C-120m/c, C-500m/c

### Known issues

No issues have been discovered.

## Contact us

### Website, email

#### General

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