

CSI-2 FIRMWARE RELEASE NOTES

Alvium 1500 C and 1800 C cameras

2022-May-16
V00.08.01.13f227a4



Helpful downloads

- Operating and updating cameras: Alvium CSI-2 Cameras 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
- Firmware files
www.alliedvision.com/en/support/firmware
- Firmware updater, included in **Vimba Suite**
www.alliedvision.com/software

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	FW release date
Alvium 1500 C-120m/c, C-210m/c, C-500m/c, C-501 m/c NIR Alvium 1800 C-500m/c	FW 00.08.01.13f227a4	2022-May-16
Alvium 1500 C-050m/c 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-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	FW 00.08.00.6727174b	2022-Mar-21

Table 3: Latest firmware version by model

FW 00.08.01.13f227a4

Release date: 2022-May-16

Supported models

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

Table 4: 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 AutoWhiteBalance measurement was fixed.

Known issues

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

Table 5: Known issues

FW 00.08.00.6727174b

Release date: 2022-Mar-21

Supported models

Camera family	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 6: Supported models

New models

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

New features

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

This includes the following features:

- 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
721	Models in GenICam for CSI-2 Access mode	TestPattern 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 GenICam for CSI-2 Access mode	Feature settings are lost when the camera is closed. After restart, features must be set manually again.

Table 7: Known issues (Sheet 1 of 2)

Alvium ID	Affected models	Description
OCT-2247	Models in GenICam for CSI-2 Access mode	Features StatFramesCRCError , StatFramesIncomplete , StatFramesUnderrun in the StreamInformation/Statistics category return 0 , incomplete or dropped frames cannot be detected
338	1500 C-210m/c, 1500 C-500m/c, 1500 C-501m/c, 1800 C-1240m/c, 1800 C-2050m/c	If Acquisition Stop is executed shortly after Acquisition Start , no image is transmitted.

Table 7: Known issues (Sheet 2 of 2)

FW 00.07.00.81db3896

Release date: 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 family	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 8: 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 Acquisition Stop has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if Exposure Auto is enabled. The camera must be rebooted.

Table 9: 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 Acquisition Stop is executed shortly after Acquisition Start , no image is transmitted.

Table 10: Known issues

FW 00.06.00.35992

Release date: 2021-Aug-13

Supported models

Camera family	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 11: 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 12: 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 Acquisition Stop is executed shortly after Acquisition Start , no image is transmitted.
395	All	After Acquisition Stop has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if Exposure Auto is enabled. The camera must be rebooted.

Table 13: Known issues

FW 00.04.00.34658

Release date: 2021-May-03

Supported models

Camera family	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 14: 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 15: 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 Acquisition Stop is executed shortly after Acquisition Start , no image is transmitted.
395	All	After Acquisition Stop has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if Exposure Auto is enabled. The camera must be rebooted.
553	1800 C-2460m/c	Calculated frame rates for small ROIs are not exact.

Table 16: Known issues

FW 00.03.00.31919

Release date: 2020-Dec-08

Supported models

Camera family	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 17: 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 Acquisition Stop command.

Table 18: 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 Acquisition Stop is executed shortly after Acquisition Start , 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 Acquisition Stop has been executed on a camera streaming in RGB888 (RGB3) pixel format, acquisition cannot be restarted if Exposure Auto is enabled. The camera must be rebooted.

Table 19: Known issues

FW 00.02.00.29974

Release date: 2020-Jul-23

Supported models

Camera family	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 20: 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	Acquisition Stop 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 Acquisition Stop is executed shortly after Acquisition Start , the captured frame is discarded.

Table 21: Known issues

FW 00.01.03.29478

Release date: 2020-May-07

Supported models

Camera family	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 22: 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 Offset X for Offset Y .

Table 23: Resolved issues

Known issues

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

Table 24: Known issues

FW 00.01.02.28100

Release date: 2019-Dec-03

Supported models

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

Table 25: 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 Offset X for Offset Y may not work properly.

Table 26: Known issues

FW 00.01.00.26405

Release date: 2019-Jul-01

Supported models

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

Table 27: 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

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Current firmware and release notes

<https://www.alliedvision.com/en/support/firmware-downloads>

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