

GIGE FIRMWARE RELEASE NOTES

Alvium G1 cameras

2025-Feb-13

V00.14.01.d83c7207

**Helpful downloads**

- Operating and updating cameras: Alvium G1 User Guide
- Features: Alvium Features Reference
www.alliedvision.com/en/support/technical-documentation/alvium-g1-documentation
- Firmware files
www.alliedvision.com/en/support/firmware-downloads
- Firmware updater, included in **Vimba X**
www.alliedvision.com/en/products/software/vimba-x-sdk

Latest firmware version for your Alvium G1 model

The following table lists the latest firmware version for your Alvium G1 camera.

Models	FW version	Document release
Alvium G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-831m/c, G1-832m/c, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c	FW 00.14.01.d83c7207	2025-Feb-13
Alvium G1-131m/c, Alvium G1-192m/c	FW 00.13.01.794391f9 Update	2024-Jun-26

Table 3: Latest firmware version by model**Minimum supported firmware version**

See [Minimum firmware versions by model](#) on page 2.

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 4).



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.

G1-	Minimum FW	G1-	Minimum FW	G1-	Minimum FW
030 VSWIR	00.11.00	319m/c	00.11.00	1236m/c	00.11.00
040m/c	00.11.00	500m/c	00.11.00	1240m/c	00.11.00
130 VSWIR	00.11.00	507m/c	00.11.00	1242m/c	00.11.00
131m/c	00.13.01	507m/c Pol	00.13.00	1620m/c	00.11.00
158m/c	00.11.00	510m/c	00.11.00	2040m/c	00.11.00
192m/c	00.13.01	811m/c	00.11.00	2050m/c	00.11.00
234m/c	00.11.00	812 UV	00.11.00	2460m/c	00.11.00
240m/c	00.11.00	895m/c	00.12.00		

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 for firmware recovery.

FW 00.14.01.d83c7207

Date of document release: 2025-Feb-13

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-831m/c, G1-832m/c, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 5: Supported models

New models

No new models were added.

Changed or new features

No features were changed or added.

Resolved issues

Alvium ID	Affected models	Description
1554	All	Cameras cannot stream when using Zebra Matrox CaptureWorks software.
1531	All	Executing the <code>TimeStampLatch</code> command does not update <code>TimestampLatchValue</code> .
1521	All	The event message for <code>EventActionLate</code> is not output in time.
1507	All	Slave cameras do not synchronize correctly to master cameras when using PTP.
1326	G1-2050m/c	The image turns purple when cameras receive an external trigger.
1287	All	<code>Gain</code> values are not set properly when changed in a fast sequence.

Table 6: Resolved issues

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.
978	All	If an <code>AcquisitionStop</code> command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.
1324	G1-500m/c, G1-1240m/c, G1-2050m/c	This applies with <code>AcquisitionMode</code> set to <code>MultiFrame</code> : If cameras have been triggered by <code>AcquisitionStart</code> , the streaming stops when parameters are changed.

Table 7: Known issues

FW 00.14.00.baba1e3c

Date of document release: 2024-Nov-04

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-831m/c, G1-832m/c, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 8: Supported models

New models

No new models were added.

Changed features

Power consumption was reduced for *StandbyMode*.

New features

- *FrameBufferOverflow* option has been added for *EventsData*.
- *GevPAUSEFrameReception* and *GevPAUSEFrameReceptionActive* have been added to *GigEVision* in the *TransportLayerControl* category.

Resolved issues

Alvium ID	Affected models	Description
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
917	G1-500m/c, G1-1240m/c, G1-2050m/c	Scenario: <i>ExposureActiveMode</i> 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 <i>ExposureActiveMode</i> is set to <i>FlashWindow</i> , not to <i>FirstLine</i> .
931	All	If values for <i>OffsetX</i> and <i>OffsetY</i> are changed, the position of a previously selected auto mode region is shifted.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed <i>DataPacketHeaders_ByteOrder</i> test.
1211	G1-500m/c	When using single frame capture with long exposure times, the camera crashes.
1253	All	Setting start values for counters does not behave as defined by the SFNC, making counters difficult to use.
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.
1361	All	Scenario: <i>PtpEnable</i> is set to <i>True</i> in a viewer application. After closing and opening the viewer again, <i>PtpEnable</i> is set to <i>False</i> .

Table 9: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
1375	All	Counters behave unexpectedly. For example, lines change or counting stops.
1378	All	LineStatusAll outputs wrong values for the current use of GPIOs.
1418	All	Issue: CounterEventSource cannot be saved for all lines. Solution: Changed with issue 1375 .
1428	All	Occasionally, the camera returns 0.0.0.0 for GevCurrentIPAddress instead of the current IP address.
1434	All	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> .
1445	All	Sometimes the camera crashes when it receives unexpected packets by Common Vision Blox (CVB).
1483	All	After it has received a DeviceReset command, the camera does not reboot properly.

Table 9: Resolved issues (sheet 2 of 2)

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
978	All	If an AcquisitionStop command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.
1324	G1-500m/c, G1-1240m/c, G1-2050m/c	This applies with AcquisitionMode set to MultiFrame : If cameras have been triggered by AcquisitionStart , the streaming stops when parameters are changed.

Table 10: Known issues

FW 00.13.01.794391f9 | Update

Date of **document update**: 2024-Jun-26

Date of document release: 2024-Mar-25

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-131m/c, G1-158m/c, G1-192m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-831m/c, G1-832m/c, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 11: Supported models

New models

Alvium G1-131 and G1-192models have been added.

Changed features

- RFC 3927 compliant DHCP
- *FrameActive* and *ReadOutActive* options have been added for *LineSource* in *DigitalIOControl*.
- *EventFrameTriggerMissed*, *EventPtpSyncLocked*, and *EventPtpSyncLost* options have been added for *EventsData* in *EventControl*.
- Support by RS (rolling shutter) models has been added for *EventFrameTriggerWait* for *EventsData* in *EventControl*.

New features

- *DevicePowerSavingMode* in *DeviceControl*
- *TestPattern* in *ImageFormatControl*

Resolved issues

No known issues have been resolved.

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If <i>AcquisitionStop</i> is executed shortly after <i>AcquisitionStart</i> , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed <i>DataPacketHeaders_ByteOrder</i> test.
978	All	If an <i>AcquisitionStop</i> command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.
1324	G1-500m/c, G1-1240m/c, G1-2050m/c	This applies with <i>AcquisitionMode</i> set to <i>MultiFrame</i> : If cameras have been triggered by <i>AcquisitionStart</i> , the streaming stops when parameters are changed.

Table 12: Known issues

FW 00.13.01.794391f9

Date of document release: 2024-Mar-25

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-131m/c, G1-158m/c, G1-192m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 13: Supported models

New models

No new models have been added.

Changed features

- RFC 3927 compliant DHCP
- FrameActive* and *ReadOutActive* options have been added for *LineSource* in *DigitalIOControl*.
- EventFrameTriggerMissed*, *EventPtpSyncLocked*, and *EventPtpSyncLost* options have been added for *EventsData* in *EventControl*.
- Support by RS (rolling shutter) models has been added for *EventFrameTriggerWait* for *EventsData* in *EventControl*.

New features

- DevicePowerSavingMode* in *DeviceControl*
- TestPattern* in *ImageFormatControl*

Resolved issues

No known issues have been resolved.

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If <i>AcquisitionStop</i> is executed shortly after <i>AcquisitionStart</i> , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed <i>DataPacketHeaders_ByteOrder</i> test.
978	All	If an <i>AcquisitionStop</i> command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.
1324	G1-500m/c, G1-1240m/c, G1-2050m/c	This applies with <i>AcquisitionMode</i> set to <i>MultiFrame</i> : If cameras have been triggered by <i>AcquisitionStart</i> , the streaming stops when parameters are changed.

Table 14: Known issues

FW 00.13.00.71d891fe | 2nd update

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

Date of 1st document update: 2024-Jan-17

Date of document release: 2023-Dec-13



Removed contents

Alvium G1-131m/c and G1-192m/c were released with [FW 00.13.01.794391f9](#) on page 7. Therefore, contents for these models were removed from this section with the document update for [FW 00.13.01.794391f9 | Update](#) on page 5 on 2024-Jun-26.



Dropped frames with GEV versions

Until firmware version 11.0, Alvium GigE cameras support GigE Vision Standard (GEV) V1.2. From firmware version 12.0, they support V2.2.

GEV V2.x allows to set flags `PREVIOUS_BLOCK_DROPPED` to notify the host of frames dropped on the camera. From firmware V13.0, Alvium GigE cameras drop frames on the camera when data is about to overflow the image buffer. This way, no corrupted images are sent to the camera.

Therefore, Alvium GigE cameras behave differently from previous GigE cameras by Allied Vision.

Please observe that you increase the risk of dropped frames when you use Flow Control back pressure mechanism or when you operate cameras in burst mode.

Previous GigE cameras, such as Mako, Manta, or Prosilica GT

With GEV V1.x, `StatFrameDropped` lists frames dropped on the host.

Alvium G1 or G5/G5X

With GEV V1.x, `StatFrameDropped` lists frames dropped on the host.

With GEV V2.x, `StatFrameDropped` lists frames dropped on the host as well.

In addition, `FrameStatisticsCounter` lists frames dropped **on the camera** (when `FrameStatisticsCounterSelector` is set to `Missed` or `Bad`).

This applies when Alvium GigE cameras are operated using Vimba X GigE TL. Alvium GigE cameras switch back to GEV V1.x mode with Vimba GigE TL. This way, they can be used to easily replace previous GigE cameras in existing applications.

This note was added with document updates for [FW 00.13.01.794391f9](#) on page 7.

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 15: Supported models

New models

Alvium G1-507m/c Pol

Changed features

- Alvium G1-1240m/c and -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.
- ROI frame rates have been increased.
- Minimum exposure times have been reduced for all Alvium G1 models, except for G1-500, -1240, and -2050 models.
- Sensor binning has been added for G1-158m and -240m models.
- Related to known issue Alvium ID 253: Removed `IntensityControllerOutliersBright` and `IntensityControllerOutliersDark` from `AutoModeControl`.

New features

- `ChunkDataControl` features
- `ClockTriggerFrequency` and `ClockTriggerTimestamp` to synchronize triggering for several cameras
- `DeviceTemperatureStatus` as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- `EventControl` features
- `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
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for <code>Height</code> and <code>OffsetY</code> .
1171	Alvium G1-2050m/c	If user sets are loaded where <code>ReverseY = True</code> and <code>OffsetY</code> is configured, the output image is distorted.
1178	All	Issues with <code>GevSupportedOptionSelector</code> : Values are not displayed in alphabetical order. The support status is not displayed correctly. Displayed FW versions do not reflect actual values.

Table 16: Resolved issues

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed <code>DataPacketHeaders_ByteOrder</code> test.

Table 17: Known issues (sheet 1 of 2)

Alvium ID	Affected models	Description
978	All	If an AcquisitionStop command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.
1324	G1-500m/c, G1-1240m/c, G1-2050m/c	This applies with AcquisitionMode set to MultiFrame: If cameras have been triggered by AcquisitionStart, the streaming stops when parameters are changed.

Table 17: Known issues (sheet 2 of 2)

FW 00.13.00.71d891fe | 1st update

Date of **1st document update**: 2024-Jan-17

Date of document release: 2023-Dec-13

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-131m/c, G1-158m/c, G1-192m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-507m/c Pol , G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 18: Supported models

New models

Alvium G1-507m/c Pol

Changed features

- Alvium G1-1240m/c and -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.
- ROI frame rates have been increased.
- Minimum exposure times have been reduced for all Alvium G1 models, except for G1-500, -1240, and -2050 models.
- Sensor binning has been added for G1-158m and -240m models.
- Related to known issue Alvium ID 253: Removed **IntensityControllerOutliersBright** and **IntensityControllerOutliersDark** from **AutoModeControl**.

New features

- ChunkDataControl** features
- ClockTriggerFrequency** and **ClockTriggerTimestamp** to synchronize triggering for several cameras
- DeviceTemperatureStatus** as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- EventControl** features
- 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
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for Height and OffsetY .
1171	Alvium G1-2050m/c	If user sets are loaded where ReverseY = <i>True</i> and OffsetY is configured, the output image is distorted.
1178	All	Issues with GevSupportedOptionSelector : Values are not displayed in alphabetical order. The support status is not displayed correctly. Displayed FW versions do not reflect actual values.

Table 19: Resolved issues

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_ByteOrder test.
978	All	If an AcquisitionStop command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.

Table 20: Known issues

FW 00.13.00.71d891fe

Date of document release: 2023-Dec-13

Supported models

Camera series	Model
Alvium G1	Alvium G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-131m/c, G1-158m/c, G1-192m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 21: Supported models

New models

No new models were added.

Changed features

- Alvium G1-1240m/c and -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.
- ROI frame rates have been increased.

- Minimum exposure times have been reduced for all Alvium G1 models, except for G1-500, -1240, and -2050 models.
- Sensor binning has been added for G1-158m and -240m models.
- Related to known issue Alvium ID 253: Removed **IntensityControllerOutliersBright** and **IntensityControllerOutliersDark** from **AutoModeControl**.

New features

- **ChunkDataControl** features
- **ClockTriggerFrequency** and **ClockTriggerTimestamp** to synchronize triggering for several cameras
- **DeviceTemperatureStatus** as an indicator to take measures before the camera is shut off when the maximum operating temperature is exceeded
- **EventControl** features
- **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
1151	All	If binning is activated after an ROI is set, the camera returns invalid values for Height and OffsetY .
1171	Alvium G1-2050m/c	If user sets are loaded where ReverseY = True and OffsetY is configured, the output image is distorted.
1178	All	Issues with GevSupportedOptionSelector : Values are not displayed in alphabetical order. The support status is not displayed correctly. Displayed FW versions do not reflect actual values.

Table 22: Resolved issues

Known issues

Alvium ID	Affected models	Description
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_ByteOrder test.
978	All	If an AcquisitionStop command is executed at the same point in time as a change for a sequencer set, the sequencer cannot be started again.

Table 23: Known issues

FW 00.12.00.00611a22e | 3rd update

Date of **3rd document update**: 2023-Nov-21

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

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

Date of document release: 2023-Jun-15



Removed contents

- 12-bit pixel formats for cameras with 10-bit sensors were already available with the initial firmware version for Alvium G1: [FW 00.09.00.e23cb4e8](#) on page 24.
- Alvium G1-131m/c and G1-192m/c were released with [FW 00.13.01.794391f9](#) on page 7. Therefore, contents for these models were removed from this section with the document update for [FW 00.13.01.794391f9 | Update](#) on page 5 on 2024-Jun-26.

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 24: 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 G1 User Guide or model data sheets.
- Added Mono12Packed and BayerGR12Packed (G1-500c) or BayerRG12Packed (other models) for `PixelFormat`.

New features

- Support for mandatory features according to GenICam SFNC V2.7
- GigE Vision V2.2 support
- Scheduled action commands: Can be used the same way as action commands.
- `LutValueAll` to write a complete LUT in one access
- `MultipleRegions` subcategory in the `ImageFormatControl` category. The existence of this feature and available arrangement modes depend on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added `TestPendingAck` in the `TestControl` category.

Resolved issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
854	All	GP02 trigger direction error: GP02 can be set for both input and output, despite having only output capabilities.
890	All	GP02 is high during camera boot up for several seconds (usually 1 to 3 s).
967	All	BlackLevel is wrongly set after loading settings file: The camera incorrectly reports a BlackLevel value of 0 , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of 0 .
976	All	Opto-isolated Input GPI3 status is inverted. As a workaround, the rising edge signal must be treated as a falling edge, and vice versa. Note: If you want to keep your existing setup using GPI3 unchanged, please keep the firmware version V 00.11 or below and do not update the firmware to higher versions for your Alvium G1 camera.
984	All	TransferQueueMaxBlockCount is incorrect when TransferControlMode is set to Automatic .
996	G1-510m/c	Sensor binning not working after digital binning has been used: After activating and deactivating sensor binning, binning cannot be set back to digital binning.
997	G1-510m/c	Disable of burst not working: Once the burst mode is activated by setting TransferControlMode to Automatic , it cannot be deactivated without performing a power cycle.
1041	G1-500m/c, G1-1240m/c, G1-2050m/c	DPC (defect pixel correction) is not working when ReverseY is turned on: For rolling shutter models, defect pixels may appear after turning on ReverseY .

Table 25: Resolved issues

Known issues

Alvium ID	Affected models	Description
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_ByteOrder test.

Table 26: Known issues

FW 00.12.00.00611a22e | 2nd update

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

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

Date of document release: 2023-Jun-15

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-131m/c , G1-158m/c, G1-192m/c , G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 27: Supported models

New models

Alvium G1-131m/c, G1-192m/c

Changed features

- Added Sensor option for BinningSelector. The existence of this option depends on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added 12-bit sensor formats for cameras with 10-bit sensors for **PixelFormat**.
- Added Mono12Packed and BayerGR12Packed (G1-500c) or BayerRG12Packed (other models) for **PixelFormat**.

New features

- Support for mandatory features according to GenICam SFNC V2.7
- GigE Vision V2.2 support
- Scheduled action commands: Can be used the same way as action commands.
- LutValueAll** to write a complete LUT in one access
- MultipleRegions** subcategory in the **ImageFormatControl** category. The existence of this feature and available arrangement modes depend on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added **TestPendingAck** in the **TestControl** category.

Resolved issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
854	All	GP02 trigger direction error: GP02 can be set for both input and output, despite having only output capabilities.
890	All	GP02 is high during camera boot up for several seconds (usually 1 to 3 s).
967	All	BlackLevel is wrongly set after loading settings file: The camera incorrectly reports a BlackLevel value of 0 , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of 0 .

Table 28: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
976	All	<p>Opto-isolated Input GPI3 status is inverted. As a workaround, the rising edge signal must be treated as a falling edge, and vice versa.</p> <p>Note: If you want to keep your existing setup using GPI3 unchanged, please keep the firmware version V 00.11 or below and do not update the firmware to higher versions for your Alvium G1 camera.</p>
984	All	TransferQueueMaxBlockCount is incorrect when TransferControlMode is set to Automatic .
996	G1-510m/c	Sensor binning not working after digital binning has been used: After activating and deactivating sensor binning, binning cannot be set back to digital binning.
997	G1-510m/c	Disable of burst not working: Once the burst mode is activated by setting TransferControlMode to Automatic , it cannot be deactivated without performing a power cycle.
1041	G1-500m/c, G1-1240m/c, G1-2050m/c	DPC (defect pixel correction) is not working when ReverseY is turned on: For rolling shutter models, defect pixels may appear after turning on ReverseY .

Table 28: Resolved issues (sheet 2 of 2)

Known issues

Alvium ID	Affected models	Description
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_ByteOrder test.

Table 29: Known issues

FW 00.12.00.00611a22e | 1st update

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

Date of document release: 2023-Jun-15

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV, G1-895m/c , G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 30: Supported models

New model

Alvium G1-895m/c

Changed features

- Added Sensor option for BinningSelector. The existence of this option depends on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added 12-bit sensor formats for cameras with 10-bit sensors for **PixelFormat**.
- Added Mono12Packed and BayerGR12Packed (G1-500c) or BayerRG12Packed (other models) for **PixelFormat**.

New features

- Support for mandatory features according to GenICam SFNC V2.7
- GigE Vision V2.2 support
- Scheduled action commands: Can be used the same way as action commands.
- LutValueAll** to write a complete LUT in one access
- MultipleRegions** subcategory in the **ImageFormatControl** category. The existence of this feature and available arrangement modes depend on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added **TestPendingAck** in the **TestControl** category.

Resolved issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
854	All	GP02 trigger direction error: GP02 can be set for both input and output, despite having only output capabilities.
890	All	GP02 is high during camera boot up for several seconds (usually 1 to 3 s).
967	All	BlackLevel is wrongly set after loading settings file: The camera incorrectly reports a BlackLevel value of 0, requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of 0.

Table 31: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
976	All	<p>Opto-isolated Input GPI3 status is inverted. As a workaround, the rising edge signal must be treated as a falling edge, and vice versa.</p> <p>Note: If you want to keep your existing setup using GPI3 unchanged, please keep the firmware version V 00.11 or below and do not update the firmware to higher versions for your Alvium G1 camera.</p>
984	All	TransferQueueMaxBlockCount is incorrect when TransferControlMode is set to Automatic .
996	G1-510m/c	Sensor binning not working after digital binning has been used: After activating and deactivating sensor binning, binning cannot be set back to digital binning.
997	G1-510m/c	Disable of burst not working: Once the burst mode is activated by setting TransferControlMode to Automatic , it cannot be deactivated without performing a power cycle.
1041	G1-500m/c, G1-1240m/c, G1-2050m/c	DPC (defect pixel correction) is not working when ReverseY is turned on: For rolling shutter models, defect pixels may appear after turning on ReverseY .

Table 31: Resolved issues (sheet 2 of 2)

Known issues

Alvium ID	Affected models	Description
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_BitOrder test.

Table 32: Known issues

FW 00.12.00.00611a22e

Date of document release: 2023-Jun-15

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR, G1-040m/c, G1-130 VSWIR, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 33: Supported models

New model

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 G1 User Guide or model data sheets.
- Added 12-bit sensor formats for cameras with 10-bit sensors for **PixelFormat**.
- Added Mono12Packed and BayerGR12Packed (G1-500c) or BayerRG12Packed (other models) for **PixelFormat**.

New features

- Support for mandatory features according to GenICam SFNC V2.7
- GigE Vision V2.2 support
- Scheduled action commands: Can be used the same way as action commands.
- LutValueAll** to write a complete LUT in one access
- MultipleRegions** subcategory in the **ImageFormatControl** category. The existence of this feature and available arrangement modes depend on the sensor. Please see the Alvium G1 User Guide or model data sheets.
- Added **TestPendingAck** in the **TestControl** category.

Resolved issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
854	All	GP02 trigger direction error: GP02 can be set for both input and output, despite having only output capabilities.
890	All	GP02 is high during camera boot up for several seconds (usually 1 to 3 s).
967	All	BlackLevel is wrongly set after loading settings file: The camera incorrectly reports a BlackLevel value of 0 , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of 0 .
976	All	Opto-isolated Input GPI3 status is inverted. As a workaround, the rising edge signal must be treated as a falling edge, and vice versa. Note: If you want to keep your existing setup using GPI3 unchanged, please keep the firmware version V 00.11 or below and do not update the firmware to higher versions for your Alvium G1 camera.
984	All	TransferQueueMaxBlockCount is incorrect when TransferControlMode is set to Automatic .
996	G1-510m/c	Sensor binning not working after digital binning has been used: After activating and deactivating sensor binning, binning cannot be set back to digital binning.
997	G1-510m/c	Disable of burst not working: Once the burst mode is activated by setting TransferControlMode to Automatic , it cannot be deactivated without performing a power cycle.
1041	G1-500m/c, G1-1240m/c, G1-2050m/c	DPC (defect pixel correction) is not working when ReverseY is turned on: For rolling shutter models, defect pixels may appear after turning on ReverseY .

Table 34: Resolved issues

Known issues

Alvium ID	Affected models	Description
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.
856	All	DHCP server timeout issue: Acquisition may stop. Typically, temperature status still works.
961	All	Running with GigE Validation Framework v2.2 RC4, Alvium GigE cameras failed DataPacketHeaders_BYTEOrder test.

Table 35: Known issues

FW 00.11.00.9cf0c21e | updated

Date of **document update**: 2023-Jan-09

Date of document release: 2022-Nov-14

Supported models

Camera series	Model
Alvium G1	G1-030 VSWIR , G1-040m/c, G1-130 VSWIR , G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-812 UV , G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 36: Supported models

New model

Alvium **G1-030 VSWIR**, **G1-130 VSWIR**, G1-510m/c, **G1-812 UV**

Changed features

- **ActionControl** features have been tested and validated for proper function.
- The maximum value for **Gain** is increased to 48 dB for all models with Sony IMX global shutter sensors.
- Increments for **OffsetX** and **OffsetY** for camera models with Sony IMX global shutter sensor
- Reduced options for **SoftwareSignalSelector**

New features

- Counter features in the **CounterAndTimerControl** category
- Ethernet Flow Control (configurable on NICs and Ethernet devices)
- **LineDebounceDuration** and **LineDebounceMode** in the **DeviceControl** category
- **SequencerControl** category
- **TransferControl** category with features to acquire a sequence of images as a burst

Resolved issues

Alvium ID	Affected models	Description
806	Color models	Error in color transformation has been fixed.

Table 37: Resolved issues

Known issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If <code>ShutterMode</code> is changed after image acquisition, the <code>ExpsoureActive</code> signal disappears.
253	All	Auto mode feature <code>IntensityControllerOutliersDark</code> does not work properly.
338	G1-500m/c, G1-1240m/c, G1-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.

Table 38: Known issues

FW 00.11.00.9cf0c21e

Date of document release: 2022-Nov-14

Supported models

Camera series	Model
Alvium G1	G1-040m/c, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-510m/c, G1-811m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 39: Supported models

New model

Alvium G1-510m/c

Changed features

- `ActionControl` features have been tested and validated for proper function.
- The maximum value for `Gain` is increased to 48 dB for all models with Sony IMX global shutter sensors.
- Increments for `OffsetX` and `OffsetY` for camera models with Sony IMX global shutter sensor
- Reduced options for `SoftwareSignalSelector`

New features

- Counter features in the `CounterAndTimerControl` category
- Ethernet Flow Control (configurable on NICs and Ethernet devices)
- `LineDebounceDuration` and `LineDebounceMode` in the `DeviceControl` category
- `SequencerControl` category
- `TransferControl` category with features to acquire a sequence of images as a burst

Resolved issues

Alvium ID	Affected models	Description
806	Color models	Error in color transformation has been fixed.

Table 40: Resolved issues

Known issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If <code>ShutterMode</code> is changed after image acquisition, the <code>ExpsoureActive</code> signal disappears.
253	All	Auto mode feature <code>IntensityControllerOutliersDark</code> does not work properly.
338	G1-500m/c, G1-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.

Table 41: Known issues

FW 00.10.00.2cf3b22e | Update

Date of **document update**: 2022-Aug-08

Date of document release: 2022-Jul-20

Supported models

Corrected: Alvium **G1-235m/c** is not included.

Camera series	Model
Alvium G1	G1-040m/c, G1-158m/c, G1-234m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-811m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 42: Supported models

New model

Alvium G1-234m/c

Changed features

In previous firmware versions, `BlackLevel` 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 `BlackLevel` 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.

Corrected: The maximum value for `Gain` is still **24 dB** for all models with Sony IMX global shutter sensors.

New features

- `ActionControl` category: The features are not working properly yet. This will be fixed in the next firmware release.
- `GVCP` subcategory
- `PTPControl` category
- `SerialHub` subcategory for I/O control by UART

- **SoftwareSignalControl** 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.)

Known issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.

Table 43: Known issues

FW 00.10.00.2cf3b22e

Date of document release: 2022-Jul-20

Note: Data on this page is incorrect. Please see [FW 00.10.00.2cf3b22e | Update on page 22](#).

Supported models

Camera series	Model
Alvium G1	G1-040m/c, G1-158m/c, G1-234m/c, G1-235m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-811m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2040m/c, G1-2050m/c, G1-2460m/c

Table 44: Supported models

New models

Alvium G1-234m/c, G1-235m/c

Changed features

In previous firmware versions, **BlackLevel** 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 **BlackLevel** 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

- **ActionControl** category: The features are not working properly yet. This will be fixed in the next firmware release.
- **GVCP** subcategory
- **PTPControl** category
- **SerialHub** subcategory for I/O control by UART

- SoftwareSignalControl 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.)

Known issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.

Table 45: Known issues

FW 00.09.00.e23cb4e8

Date of document release: 2022-May-04

Supported models

Camera series	Model
Alvium G1	G1-040m/c, G1-158m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-811m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2050m/c, G1-2050m/c, G1-2460m/c

Table 46: Supported models

New models

Initial commercial release of Alvium G1-040m/c, G1-158m/c, G1-240m/c, G1-319m/c, G1-500m/c, G1-507m/c, G1-811m/c, G1-1236m/c, G1-1242m/c, G1-1620m/c, G1-2050m/c, G1-2050m/c, G1-2460m/c

New features

Initial feature set

Known issues

Alvium ID	Affected models	Description
251	G1-2050m/c	If ShutterMode is changed after image acquisition, the ExpsoureActive signal disappears.
253	All	Auto mode feature IntensityControllerOutliersDark does not work properly.
338	G1-500m/c, G1-2050m/c	If AcquisitionStop is executed shortly after AcquisitionStart , no image is transmitted.

Table 47: Known issues

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