GigE Firmware Release Notes

Alvium G1 cameras

Helpful downloads

- Operating and updating cameras: Alvium G1 Cameras User Guide
- Features: Alvium Features Reference
  www.alliedvision.com/en/support/technical-documentation/alvium-gige-documentation

- Firmware files
  www.alliedvision.com/en/support/firmware

- 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, -040m/c, -130 VSWIR, -131m/c, -158m/c, -192m/c, -234m/c, -240m/c, -319m/c, -500m/c, -507m/c, -507m/c Pol, -510m/c, -811m/c, -812 UV, -895m/c, -1236m/c, -1242m/c, -1620m/c, -2040m/c, -2050m/c, -2460m/c	FW 00.13.01.794391f9	2024-Mar-25

Table 3: Latest firmware version by model

FW 00.13.01.794391f9

Date of document release: 2024-Mar-25

Supported models

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

Table 4: 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 `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.
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 5: 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

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 2.

Supported models

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

Table 6: 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` = *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 7: 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.
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 8: Known issues

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

Table 9: 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` = *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 10: 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 11: Known issues

FW 00.13.00.71d891fe

Date of document release: 2023-Dec-13

Supported models

Camera family	Model
Alvium	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 12: 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 13: 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 14: 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 18.

Supported models

Camera family	Model
Alvium	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 15: 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 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.

Table 16: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
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 bining, bining 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 16: 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 17: 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 family	Model
Alvium	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 18: 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`.
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 bining, bining 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 19: 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 20: 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 family	Model
Alvium	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, G1-510m/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 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`.
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 bining, bining 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 22: 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 23: Known issues

FW 00.12.00.00611a22e

Date of document release: 2023-Jun-15

Supported models

Camera family	Model
Alvium	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, G1-510m/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 24: 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*.

Table 25: Resolved issues (sheet 1 of 2)

Alvium ID	Affected models	Description
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 bining, bining 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 (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 26: 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 family	Model
Alvium	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, G1-510m/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 27: 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 28: Resolved issues

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, G1-1240m/c, G1-2050m/c	If `AcquisitionStop` is executed shortly after `AcquisitionStart`, no image is transmitted.

Table 29: Known issues

FW 00.11.00.9cf0c21e

Date of document release: 2022-Nov-14

Supported models

Camera family	Model
Alvium	Alvium 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 30: 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 31: Resolved issues

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 32: Known issues

FW 00.10.00.2cf3b22e | corrected

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 family	Model
Alvium	Alvium 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 33: 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 34: Known issues

FW 00.10.00.2cf3b22e

Date of document release: 2022-Jul-20

Note: Data on this page is incorrect. Please see

Supported models

Camera family	Model
Alvium	Alvium 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 35: 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 36: Known issues

FW 00.09.00.e23cb4e8

Date of document release: 2022-May-04

Supported models

Camera family	Model
Alvium	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

Table 37: 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 38: Known issues

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Support

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www.alliedvision.com/en/about-us/contact-us/technical-support-repair-/-rma

Current firmware and release notes

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

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