

## 5GIGE FIRMWARE RELEASE NOTES

### Alvium G5 cameras

2023-Jun-15  
V00.12.00.00611a22



#### Helpful downloads

- Operating and updating cameras: Alvium G5 Cameras User Guide
- Features: Alvium Features Reference  
[www.alliedvision.com/en/support/technical-documentation/alvium-gige-documentation](http://www.alliedvision.com/en/support/technical-documentation/alvium-gige-documentation)
- Firmware files  
[www.alliedvision.com/en/support/firmware](http://www.alliedvision.com/en/support/firmware)
- 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 G5 model

The following table lists the latest firmware version for your Alvium G5 camera.

Models	FW version	FW release date
Alvium G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-510m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, G5-1242m/c, G5-1620m/c, G5-2040m/c, G5-2050m/c, G5-2460m/c	<a href="#">FW 00.12.00.00611a22</a>	2023-Jun-15

Table 3: Latest firmware version by model

## FW 00.12.00.00611a22

Date of document release: 2023-Jun-15

### Supported models

Camera family	Model
Alvium	Alvium G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-510m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, G5-1242m/c, G5-1620m/c, G5-2040m/c, G5-2050m/c, G5-2460m/c

Table 4: 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 G5 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 G5 User Guide or model data sheets.
- Added **TestPendingAck** in the **TestControl** category.

### Resolved issues

Alvium ID	Affected models	Description
251	G5-2050m/c	If <b>ShutterMode</b> is changed after image acquisition, the <b>ExposureActive</b> signal disappears.
506 / 697	All	The GPIO Line 3 signal is inverted.
854	All	GPO2 trigger direction error: GPO2 can be set for both input and output, despite having only output capabilities.
890	All	GPO2 is high during camera boot up for several seconds (usually 1 to 3 s).
967	All	<b>BlackLevel</b> is wrongly set after loading settings file: The camera incorrectly reports a <b>BlackLevel</b> value of $\emptyset$ , requiring it to be set to a different value and then reset to 0 in order to actually achieve a value of $\emptyset$ .

Table 5: 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. <b>Note:</b> 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	<b>TransferQueueMaxBlockCount</b> is incorrect when <b>TransferControlMode</b> is set to <i>Automatic</i> .
996	G5-510m/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	G5-510m/c	Disable of burst not working: Once the burst mode is activated by setting <b>TransferControlMode</b> to <i>Automatic</i> , it cannot be deactivated without performing a power cycle.
1041	G5-500m/c, G5-501m/c NIR, G5-1240m/c, G5-2050m/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 5: Resolved issues (Sheet 2 of 2)

## Known issues

Alvium ID	Affected models	Description
253	All	Auto mode feature <b>IntensityControllerOutliersDark</b> does not work properly.
338	G5-500m/c, G5-2050m/c	If <b>AcquisitionStop</b> is executed shortly after <b>AcquisitionStart</b> , no image is transmitted.
507	All	<i>SingleFrame</i> mode does not work with NI Max: The last smaller packet and the trailer are missing.
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 <b>DataPacketHeaders_ByteOrder</b> test.

Table 6: 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 G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-510m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, <b>G5-1242m/c</b> , G5-1620m/c, <b>G5-2040m/c</b> , G5-2050m/c, G5-2460m/c

Table 7: Supported models

### New models

Alvium G5-510m/c, **G5-1242m/c**, **G5-2040m/c**

### Changed features

- 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

### Resolved issues

Alvium ID	Affected models	Description
696	All	Changing output signal when line is off has been fixed.
806	Color models	Error in color transformation has been fixed.

Table 8: Resolved issues

### Known issues

Alvium ID	Affected models	Description
251	G5-2050m/c	If <code>ShutterMode</code> is changed after image acquisition, the <code>ExposureActive</code> signal disappears.
253	All	Auto mode feature <code>IntensityControllerOutliersDark</code> does not work properly.
338	G5-500m/c, G5-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.
506 / 697	All	The GPIO Line 3 signal is inverted.

Table 9: Known issues

## FW 00.11.00.9cf0c21e

Date of document release: 2022-Nov-14

### Supported models

Camera family	Model
Alvium	Alvium G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-510m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, G5-1620m/c, G5-2050m/c, G5-2460m/c

Table 10: Supported models

### New models

Alvium G5-510m/c

### Changed features

- 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

### Resolved issues

Alvium ID	Affected models	Description
696	All	Changing output signal when line is off has been fixed.
806	Color models	Error in color transformation has been fixed.

Table 11: Resolved issues

### Known issues

Alvium ID	Affected models	Description
251	G5-2050m/c	If <code>ShutterMode</code> is changed after image acquisition, the <code>ExposureActive</code> signal disappears.
253	All	Auto mode feature <code>IntensityControllerOutliersDark</code> does not work properly.
338	G5-500m/c, G5-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.
506 / 697	All	The GPIO Line 3 signal is inverted.

Table 12: Known issues

## FW 00.10.00.6c9062b1 | updated notes

Date of **document update**: 2022-Aug-16

Date of document release: 2022-Jul-20

### Supported models

Camera family	Model
Alvium	Alvium G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, G5-1620m/c, G5-2050m/c, G5-2460m/c

Table 13: Supported models

### New models

Alvium G5-052m/c, G5-291m/c, G5-812 UV

### 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. **Added information**: For Alvium G5-030 VSWIR and G5-130 VSWIR, the maximum **Gain** value was increased to 42 dB.

**Added information**: FPNC was disabled for Alvium G5-030 VSWIR and G5-130 VSWIR models.

### New features

- **ActionControl** category
- **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	G5-2050m/c	If <b>ShutterMode</b> is changed after image acquisition, the <b>ExposureActive</b> signal disappears.
253	All	Auto mode feature <b>IntensityControllerOutliersDark</b> does not work properly.
338	G5-500m/c, G5-2050m/c	If <b>AcquisitionStop</b> is executed shortly after <b>AcquisitionStart</b> , no image is transmitted.
506 / 697	All	The GPIO Line 3 signal is inverted.

Table 14: 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 | updated notes](#) on page 6.

### Supported models

Camera family	Model
Alvium	Alvium G5-030 VSWIR, G5-052m/c, G5-130 VSWIR, G5-291m/c, G5-500m/c, G5-508m/c, G5-511m/c, G5-811m/c, G5-812 UV, G5-1240m/c, G5-1620m/c, G5-2050m/c, G5-2460m/c

Table 15: Supported models

### New models

Alvium G5-052m/c, G5-291m/c, G5-812 UV

### 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
- **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	G5-2050m/c	If <b>ShutterMode</b> is changed after image acquisition, the <b>ExposureActive</b> signal disappears.
253	All	Auto mode feature <b>IntensityControllerOutliersDark</b> does not work properly.
338	G5-500m/c, G5-2050m/c	If <b>AcquisitionStop</b> is executed shortly after <b>AcquisitionStart</b> , no image is transmitted.
506 / 697	All	The GPIO Line 3 signal is inverted.

Table 16: Known issues

## FW 00.08.01.13f227a4

Date of document release: 2022-May-16

### Supported models

Camera family	Model
Alvium	Alvium G5-500m/c

Table 17: Supported models

### New models

No new models were added.

### New features

No features were added.

### Resolved issues

Alvium ID	Affected models	Description
775	G5-500c	Wrong <code>AutoWhiteBalance</code> measurement was fixed.

### Known issues

Alvium ID	Affected models	Description
251	G5-2050m/c	If <code>ShutterMode</code> is changed after image acquisition, the <code>ExposureActive</code> signal disappears.
253	All	Auto mode feature <code>IntensityControllerOutliersDark</code> does not work properly.
338	G5-500m/c, G5-2050m/c	If <code>AcquisitionStop</code> is executed shortly after <code>AcquisitionStart</code> , no image is transmitted.

Table 18: Known issues



## FW 00.08.00.6727174b

Date of document release: 2022-Mar-21

### Supported models

Camera family	Model
Alvium	Alvium G5-030 VSWIR, G5-130 VSWIR, G5-500m/c, G5-508m/c, G5-811m/c, G5-1240m/c, G5-1620m/c, G5-2050m/c, G5-2460m/c

Table 19: Supported models

### New models

Alvium G5-030 VSWIR, G5-130 VSWIR, G5-500m/c, G5-508m/c, G5-811m/c, G5-1240m/c, G5-1620m/c, G5-2050m/c, G5-2460m/c

### New features

Initial feature set.

### Known issues

Alvium ID	Affected models	Description
251	G5-2050m/c	If <b>ShutterMode</b> is changed after image acquisition, the <b>ExposureActive</b> signal disappears.
253	All	Auto mode feature <b>IntensityControllerOutliersDark</b> does not work properly.
338	G5-500m/c, G5-2050m/c	If <b>AcquisitionStop</b> is executed shortly after <b>AcquisitionStart</b> , no image is transmitted.

Table 20: Known issues

## Contact us

### Website, email

#### General

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#### Current firmware and release notes

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

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