



- e2v EV76C570 CMOS sensor
- ALVIUM image processing
- GigE Vision
- 3 lens mount options

Model without hardware options

## Alvium G1 – Reliability designed for the future

Compact GigE camera for constant image quality

Alvium G1-192 with Teledyne e2v EV76C570 runs 59 frames per second at 1.9 MP resolution.

Alvium G1 is the first GigE Vision camera powered by ALVIUM® Technology, Allied Vision's ASIC chip. It combines the advantages of the established GigE Vision standard with the flexibility of the Alvium platform. In addition to a comprehensive feature set and a broad sensor selection, it offers great versatility. With its very compact housing and industrial standard hardware, it can easily be integrated into any vision system while ensuring long-term availability and reliability.

Easy software integration with **Vimba X** and compatibility to the most popular third party image-processing libraries.

## Specifications

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| Interface                          | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution                         | 1600 (H) × 1200 (V)                       |
| Spectral range                     | 300 to 1100 nm                            |
| Sensor                             | Teledyne e2v EV76C570                     |
| Sensor type                        | CMOS                                      |
| Shutter mode                       | GS (Global shutter)                       |
| Sensor size                        | Type 1/1.8                                |
| Pixel size                         | 4.5 μm × 4.5 μm                           |
| Lens mounts (available)            | C-Mount, CS-Mount, S-Mount                |
| Max. frame rate at full resolution | 59 fps at 122 MByte/s, Mono8              |
| ADC                                | 10 Bit                                    |
| Image buffer (RAM)                 | 32 MByte                                  |
| Non-volatile memory (Flash)        | 1024 KByte                                |

## Output

|                                 |                                                                         |
|---------------------------------|-------------------------------------------------------------------------|
| Bit depth                       | 10-bit                                                                  |
| Monochrome pixel formats        | Mono8, Mono10, Mono10p, Mono12, Mono12p, Mono12Packed                   |
| YUV color pixel formats         | YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr                    |
| RGB color pixel formats         | RGB8 (default), BGR8                                                    |
| Raw color pixel formats (Bayer) | BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p, BayerRG12Packed |

## General purpose inputs/outputs (GPIOs)

|                    |                   |
|--------------------|-------------------|
| TTL I/Os           | 2 GPIOs (LVTTTL)  |
| Opto-isolated I/Os | 1 input, 1 output |

## Operating conditions/dimensions

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| Operating temperature   | -20 °C to +65 °C (housing)                              |
| Power requirements (DC) | 10.8 to 26.4 VDC AUX or IEEE 802.3af, Power Class 0 PoE |

|                                   |                                                                        |
|-----------------------------------|------------------------------------------------------------------------|
| Power consumption                 | External power: 2.3 W (typical)   Power over Ethernet: 2.6 W (typical) |
| Mass                              | 70 g                                                                   |
| Body dimensions (L × W × H in mm) | 41 × 29 × 29                                                           |

## Features

### Image control: Auto

- Auto exposure
- Auto gain
- Auto white balance (color models)

### Image control: Other

- Adaptive noise correction
- Binning (digital)
- Black level
- Color transformation (incl. hue, saturation; color models)
- Contrast
- Custom convolution
- De-Bayering up to 5×5 (color models)
- DPC (defect pixel correction)
- FPNC (fixed pattern noise correction)
- Gamma
- Lens shading correction
- LUT (look-up table)
- Reverse X/Y
- ROI (region of interest)
- Sharpness/Blur

### Camera control

- Acquisition frame rate
- Action commands, incl. ToE (trigger over Ethernet)
- Bandwidth control
- Burst mode
- Counters and timers
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- Power Saving Mode

- PTP (IEEE 1588 Precision Time Protocol)
- Serial I/Os
- Temperature monitoring
- User sets

# Technical drawing

