

# Alvium

## G1-030 VSWIR



- IMX991 VSWIR 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 G1-030 VSWIR with Sony IMX991 | InGaAs runs 249.0 frames per second at 0.3 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	656 (H) × 520 (V)
Spectral range	400 to 1700 nm
Sensor	Sony IMX991   InGaAs
Sensor type	InGaAs
Shutter mode	GS (Global shutter)
Sensor size	Type 1/4 VSWIR
Pixel size	5 μm × 5 μm
Lens mounts (available)	C-Mount, CS-Mount, S-Mount
Max. frame rate at full resolution	249 fps at 122 MByte/s, Mono8
ADC	12 Bit
Image buffer (RAM)	32 MByte
Non-volatile memory (Flash)	1024 KByte

## Output

Bit depth	8-bit, 10-bit, 12-bit; Adaptive (10-bit, 12-bit)
Monochrome pixel formats	Mono8 (default), Mono10, Mono10p, Mono12, Mono12p, Mono12Packed

## 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   IEEE 802.3af, Power Class 0 PoE
Power consumption	External power: 2.8 W at 12 VDC (typical)   Power over Ethernet: 3.1 W (typical)
Mass	70 g
Body dimensions (L × W × H in mm)	41 × 29 × 29

## Quantum efficiency



## Features

### Image control: Auto

- Auto exposure
- Auto gain

### Image control: Other

- Adaptive noise correction
- Binning (digital)
- Black level
- Contrast
- Custom convolution
- DPC (defect pixel correction)
- Gamma
- Lens shading correction
- LUT (look-up table)
- Multiple ROIs (regions of interest)
- 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)
- Readout modes (SensorBitDepth)
- Sequencer
- Serial I/Os
- Temperature monitoring
- User sets

Technical drawing

