Allied Vision

GiGE VISION

Alvium
G1-812 UV



- IMX487 CMOS sensor
- GigE Vision
- High bandwidths
- 2 lens mount options

Model without hardware options

Alvium G1 – Reliability designed for the future

Compact GigE camera for constant image quality

Alvium G1-812 UV with Sony IMX487 runs 14 frames per second at 8.1 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

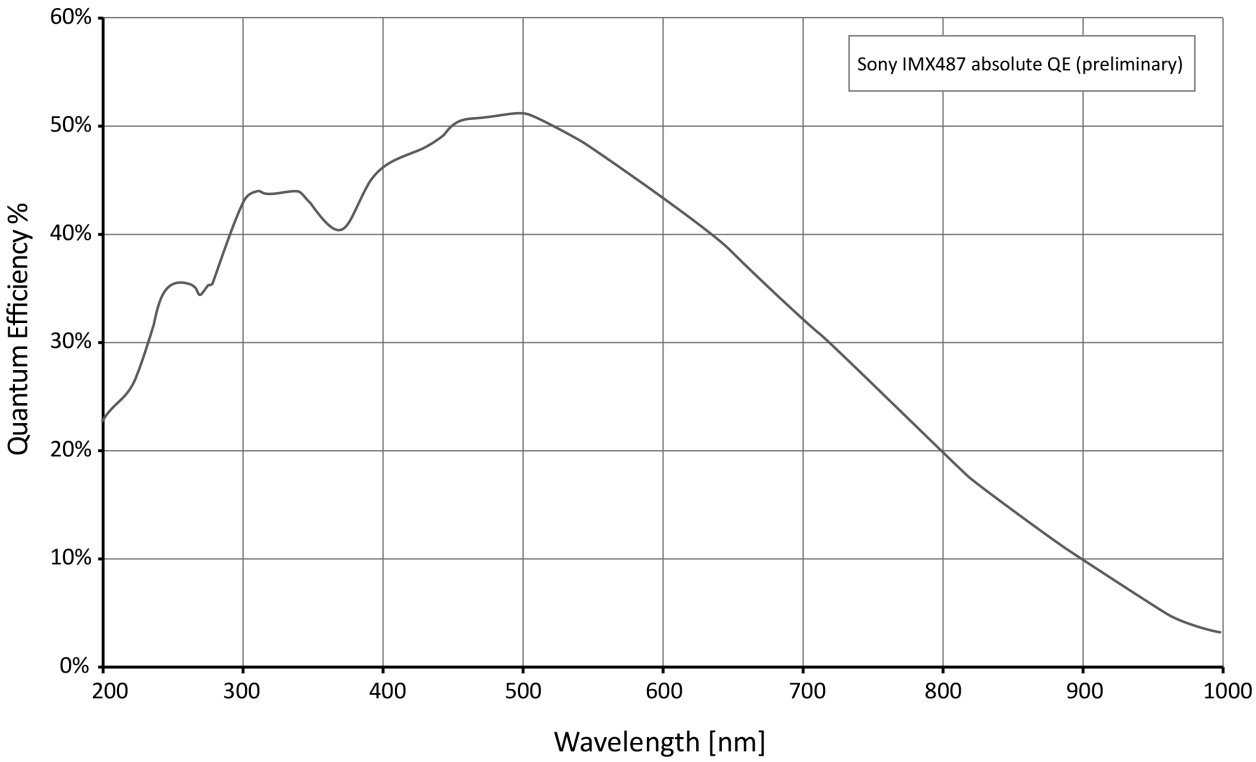
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	2848 (H) × 2848 (V)
Spectral range	200 to 1000 nm
Sensor	Sony IMX487
Sensor type	CMOS
Shutter mode	GS (Global shutter)
Sensor size	Type 2/3
Pixel size	2.74 µm × 2.74 µm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	14 fps at 122 MByte/s, Mono8
ADC	12 Bit
Image buffer (RAM)	32 MByte
Non-volatile memory (Flash)	1024 KByte

Output	
Bit depth	12-bit
Monochrome pixel formats	Mono8 (default), Mono10, Mono10p, Mono12, Mono12p, Mono12Packed

General purpose inputs/outputs (GPIOs)	
TTL I/Os	2 GPIOs (LVTTL)
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: 4.0 W at 12 VDC (typical) | Power over Ethernet: 4.6 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
- Binning: Sensor (mono models)
- Black level
- Contrast
- Custom convolution
- DPC (defect pixel correction)
- FPNC (fixed pattern noise 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)
- Sequencer
- Serial I/Os
- Temperature monitoring
- User sets

Technical drawing

