Allied Vision

Alvium
G1-2460

- IMX540 CMOS sensor
- GigE Vision
- High bandwidths
- 2 lens mount options

Model without hardware options

Alvium G1 – Reliability designed for the future

Compact 1GigE camera for constant image quality

Alvium G1-2460 with Sony IMX540 runs 4.0 frames per second at 24.6 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 the latest Global Shutter Sony IMX sensors, it offers a highly attractive price-performance ratio. With its compact housing, it can easily be integrated into any vision systems.

Easy software integration with Allied Vision's Vimba Suite and compatibility to the most popular third party image-processing libraries.

Specifications

Alvium G1-2460	
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	5328 (H) × 4608 (V)
Spectral range	300 to 1100 nm
Sensor	Sony IMX540
Sensor type	CMOS
Shutter mode	Global shutter

Alvium G1-2460	
Sensor size	Type 1.2
Pixel size	2.74 µm × 2.74 µm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	4 fps at 122 MByte/s, Mono8
ADC	12 Bit
Image buffer (RAM)	32 MByte
Non-volatile memory (Flash)	1024 KByte
Output	
Bit depth	Max. 12 Bit
Monochrome pixel formats	Mono8, Mono10, Mono10p, Mono12, Mono12p
YUV color pixel formats	YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr
RGB color pixel formats	BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p, BGR8, RGB8 (default)
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 tbd °C housing temperature
Power requirements (DC)	10.8 to 26.4 VDC AUX | IEEE 802.3af, Power Class 0 PoE
Power consumption	External power: 4.9 W at 12 VDC (typical) | Power over Ethernet: 5.6 W (typical)
Mass	62 g
Body dimensions (L × W × H in mm)	41 × 29 × 29
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-3 (B)

Quantum efficiency
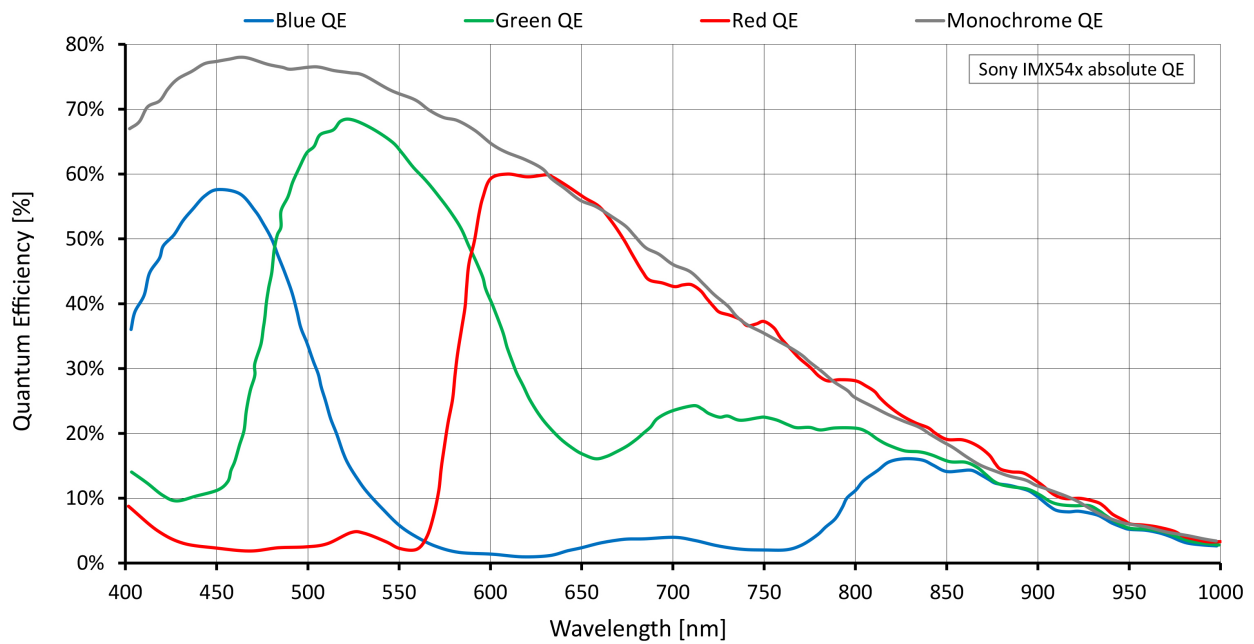
Features

Image control: Auto

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

Image control: Other

- Adaptive noise correction
- Binning
- 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

- LUT (look-up table)

- Reverse X/Y

- ROI (region of interest)

- Sharpness/Blur

*The early production cameras do not support DPC and FPNC. Support will be available with future series models.

Camera control

- Acquisition frame rate

- Bandwidth control

- Firmware update in the field

- I/O and trigger control

- Readout modes (SensorBitDepth)

- Temperature monitoring

- User sets

Technical drawing

41.3

13 ±0.1

20 ±0.1

M3 - 2.5↧ (2x)

□29.35 +0.20 −0.05

□24 ±0.1

M2 - 2↧ (4x)

C-Mount (1x32 TPI-UNS-2B)

7.9

Ø27.8 +0.3 −0.1

M2 (4x)

4.9   8.2

20

16.8

13 ±0.1

20 ±0.1

M3 - 2.5↧ (2x)