



- IMX183 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 G1-2050 with Sony IMX183 runs 5.9 frames per second at 20.2 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 Allied Vision's **Vimba Suite** and compatibility to the most popular **third party image-processing libraries**.

Specifications

| | |
|------------------------------------|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution | 5496 (H) × 3672 (V) |
| Spectral range | 300 to 1100 nm |
| Sensor | Sony IMX183 |
| Sensor type | CMOS |
| Shutter mode | Rolling shutter |
| Sensor size | Type 1 |
| Pixel size | 2.4 μm × 2.4 μm |
| Lens mounts (available) | C-Mount, CS-Mount |
| Max. frame rate at full resolution | 5.9 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 Bit |
| Monochrome pixel formats | Mono8, Mono10, Mono10p |
| YUV color pixel formats | YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr |
| RGB color pixel formats | BayerRG8, BayerRG10, BayerRG10p, 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

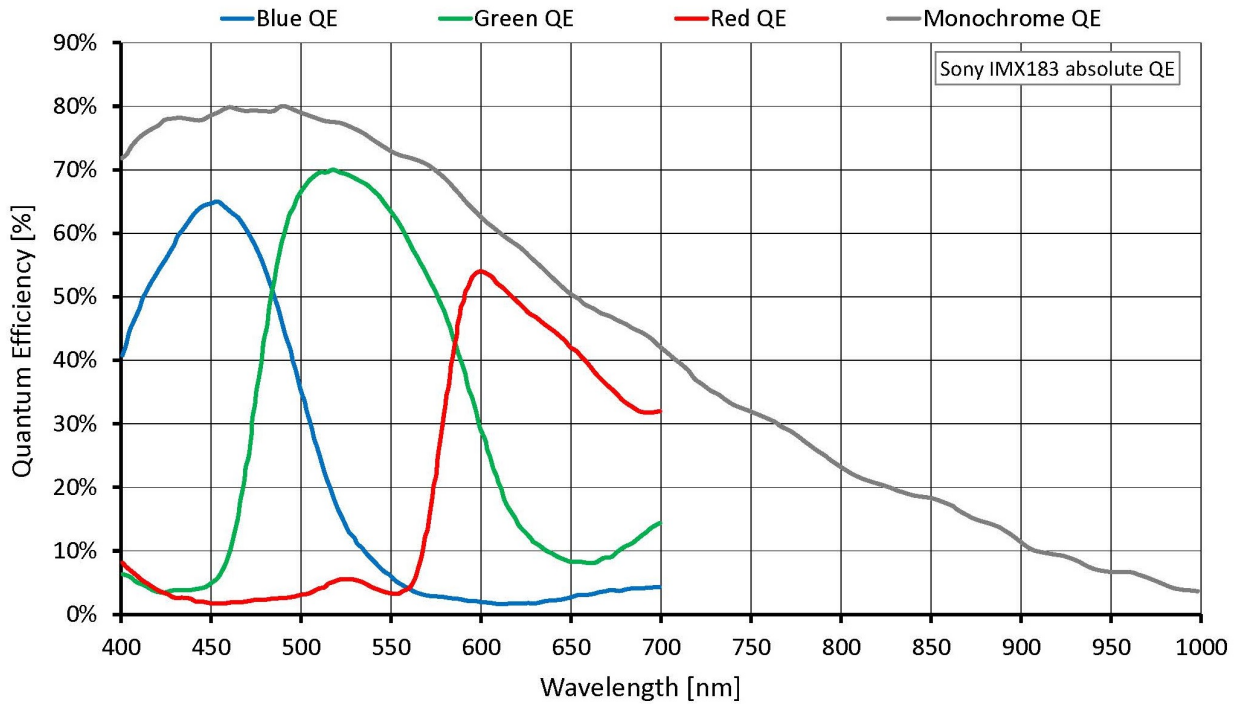
| | |
|-------------------------|--|
| Operating temperature | -20 °C to +55 °C (housing) |
| Power requirements (DC) | 10.8 to 26.4 VDC AUX IEEE 802.3af, Power Class 0 PoE |
| Power consumption | External power: 3.6 W at 12 VDC (typical) Power over Ethernet: 3.9 W (typical) |
| Mass | 65 g |

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)
- Gamma
- 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
- Counters and timers
- Firmware update in the field
- I/O and trigger control
- Readout modes (SensorBitDepth)
- Serial I/Os
- Temperature monitoring
- User sets

Technical drawing

