



Alvium

1800 U-511m

- IMX547 CMOS sensor
- ALVIUM image processing
- USB3 Vision
- Various hardware options

Hardware option: Closed Housing C-Mount 90°

Alvium 1800 U – Your entry into high-performance imaging

Industrial USB cameras with attractive price-performance ratio

Alvium 1800 U-511 with Sony IMX547 runs 66.0 frames per second at 5.1 MP resolution.

Alvium 1800 U is your entry into high-performance imaging with ALVIUM® Technology for industrial applications. Equipped with the newest generation of sensors, these small and lightweight cameras deliver high image quality and frame rates at the best price-performance ratio. With its USB3 Vision compliant interface and industrial-grade hardware, it is your workhorse for different machine vision applications whether it is on a PC-based or an embedded system.

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

See the **Alvium Cameras Hardware Options** for lens mount and housing options, as well as the **Customization and OEM Solutions webpage** for additional options.

Specifications

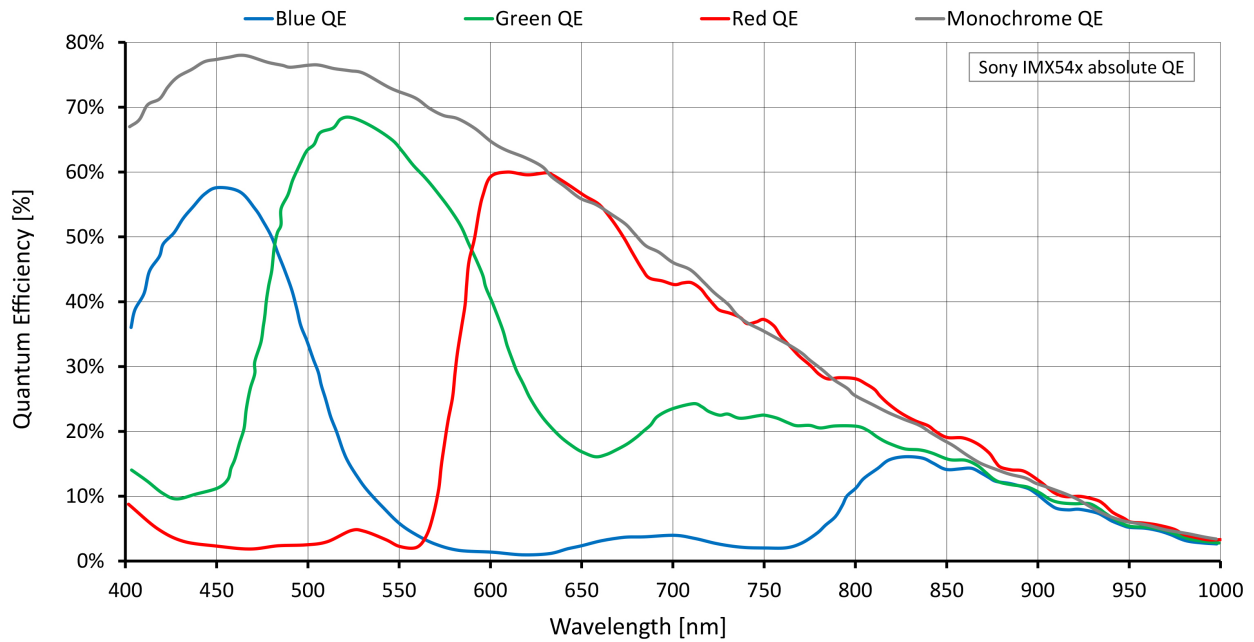
Alvium 1800 U-511m Closed Housing C-Mount 90°

| | |
|--------------|---------------------|
| Product code | 15937 |
| Interface | USB3 Vision |
| Resolution | 2464 (H) × 2064 (V) |

Alvium 1800 U-511m Closed Housing C-Mount 90°

| | |
|---|--|
| Spectral range | 300 to 1100 nm |
| Sensor | Sony IMX547 |
| Sensor type | CMOS |
| Shutter mode | Global shutter |
| Sensor size | Type 1/1.8 |
| Pixel size | 2.74 µm × 2.74 µm |
| Lens mount | C-Mount |
| Max. frame rate at full resolution | 66 fps at 375 MByte/s, Mono8 |
| ADC | 12 Bit |
| Image buffer (RAM) | 256 KB |
| Non-volatile memory (Flash) | 1024 KB |
| Output | |
| Bit depth | Max. 12 Bit |
| Monochrome pixel formats | Mono8, Mono10, Mono10p, Mono12, Mono12p |
| General purpose inputs/outputs (GPIOs) | |
| TTL I/Os | 4 programmable GPIOs |
| Operating conditions/dimensions | |
| Operating temperature | +5 °C to +65 °C (housing) |
| Power requirements (DC) | Power over USB 3.1 Gen 1 External power 5.0 V |
| Power consumption | USB power: 3.2 W (typical) Ext. power: 3.4 W (typical) |
| Mass | 70 g |
| Body dimensions (L × W × H in mm) | 38 × 32 × 29 |
| Regulations | 2014/30/EU; 2011/65/EU, incl. amendment 2015/863/EU (RoHS); FCC Class B digital device; CAN ICES-003 (B) / NMB-3 (B) |

Quantum efficiency



Features

Image control

Auto control

- Auto exposure
- Auto gain
- Auto white balance (color models)
- Auto features regions control
- Auto features algorithms control

Other image controls

- Binning
- Black level
- Contrast
- De-Bayering up to 5×5 (color models)

- Exposure time
- Gain
- Gamma
- Hue (color models)
- Saturation (color models)
- DPC (factory calibrated)
- FPNC (factory calibrated)
- Region of interest (ROI)
- Reverse X/Y

Camera control

- Acquisition frame rate
- I/O and trigger control
- Temperature monitoring (sensor board)
- Status LED luminance control
- Firmware update in the field
- U3 Power Saving Mode

Technical drawing



Camera hardware options

The **Alvium Cameras Hardware Options** document informs about submodels, such as bare board or open housing cameras with different lens mounts.

