





Alvium 1800 U-5110

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

Hardware option: Open Housing CS-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

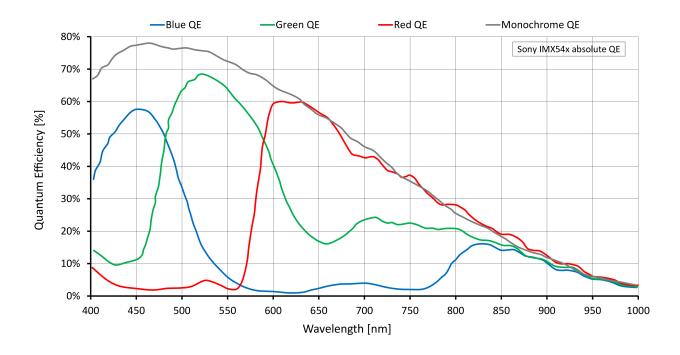
| Alvium 1800 U-511c Open Housing CS-Mount 90° | | |
|--|---------------------|--|
| Product code | 15953 | |
| Interface | USB3 Vision | |
| Resolution | 2464 (H) × 2064 (V) | |



| Alvium 1800 U-511c Open Housing CS-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 | CS-Mount | | |
| Optical Filter | Type Hoya C5000 IR cut filter | | |
| 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 | | |
| 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 | 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 | 50 g | | |
| Body dimensions (L × W × H in mm) | 25 × 32 × 29 | | |
| Regulations | 2011/65/EU, including amendment 2015/863/EU (RoHS) | | |



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

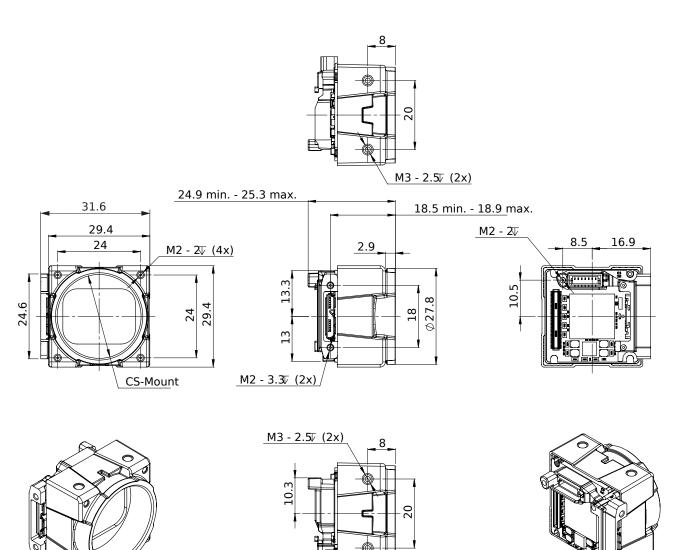
Technical drawing



Camera hardware options

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





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