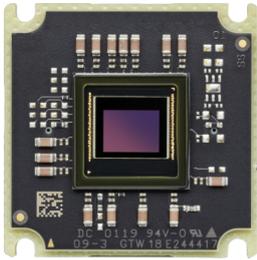


# Alvium

## 1800 U-203m



- IMX422 CMOS sensor
- ALVIUM image processing
- USB3 Vision
- Various hardware options

Hardware option: Bare Board Standard

### **Alvium 1800 U – Your entry into high-performance imaging**

Industrial USB cameras with attractive price-performance ratio

Alvium 1800 U-203 with Sony IMX422 runs 200 frames per second at 2.0 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 **Vimba X** and compatibility to the most popular third party image-processing libraries.

In addition to lens mount and housing options, see [Customization and OEM Solutions webpage](#) for additional options.

## Specifications

|                                    |  |
|------------------------------------|--|
| Product code                       | 17532   Frame, Flex, other modular options: Product code and ordering on request |
| Interface                          | USB3 Vision  |
| Resolution                         | 1632 (H) × 1248 (V)  |
| Spectral range                     | 300 to 1100 nm   |
| Sensor                             | Sony IMX422  |
| Sensor type                        | CMOS   |
| Shutter mode                       | GS (Global shutter)  |
| Sensor size                        | Type 1/1.7   |
| Pixel size                         | 4.5 μm × 4.5 μm  |
| Lens mounts (available)            | C-Mount, CS-Mount  |
| Max. frame rate at full resolution | 200 fps at 450 MByte/s, Mono8  |
| ADC                                | 12 Bit   |
| Image buffer (RAM)                 | 256 KByte  |
| Non-volatile memory (Flash)        | 1024 KByte   |

### Output

|                          |  |
|--------------------------|--|
| Bit depth                | 8-bit, 10-bit, 12-bit; Adaptive (10-bit, 12-bit) |
| Monochrome pixel formats | Mono8, Mono10, Mono10p, Mono12, Mono12p          |

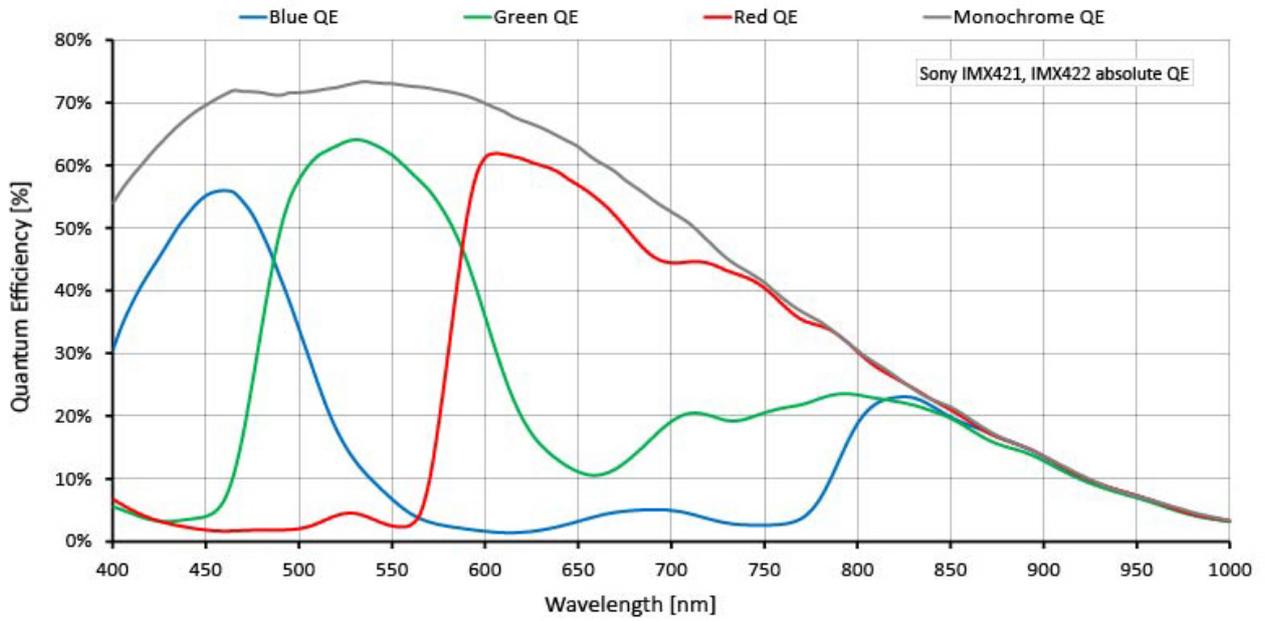
### General purpose inputs/outputs (GPIOs)

|          |                      |
|----------|----------------------|
| TTL I/Os | 4 programmable GPIOs |
|----------|----------------------|

### Operating conditions/dimensions

|                                   |  |
|-----------------------------------|--|
| Operating temperature             | -20 °C to +85 °C (cooling areas)                         |
| Power requirements (DC)           | Power over USB 3.1 Gen 1   External power 5.0 V          |
| Power consumption                 | USB power: 3.3 W (typical)   Ext. power: 3.3 W (typical) |
| Mass                              | 15 g   |
| Body dimensions (L × W × H in mm) | 14 × 26 × 26   |

## Quantum efficiency



## Features

### Image control: Auto

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

### Image control: Other

- Adaptive noise correction
- Binning: Digital
- Binning: Sensor (mono models)
- 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
- 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
- Bandwidth control
- Counters and timers
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- Power Saving Mode
- Readout modes (SensorBitDepth)
- Sequencer
- Serial I/Os
- Temperature monitoring
- User sets

# Technical drawing

