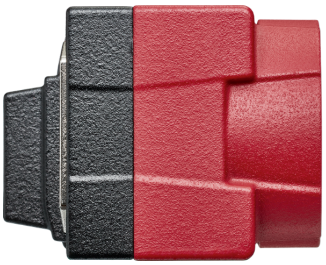
Allied Vision

# Alvium
## 1800 U-234m



- IMX249 CMOS sensor
- ALVIUM image processing
- USB3 Vision
- Various hardware options

Hardware option: Closed Housing C-Mount Standard

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

## Industrial USB cameras with attractive price-performance ratio

Alvium 1800 U-234 with Sony IMX249 runs 40.0 frames per second at 2.4 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.

Allied Vision

## Specifications

| | |
|---|---|
| Product code | 18091 |
| Interface | USB3 Vision |
| Resolution | 1936 (H) × 1216 (V) |
| Spectral range | 300 to 1100 nm |
| Sensor | Sony IMX249 |
| Sensor type | CMOS |
| Shutter mode | GS (Global shutter) |
| Sensor size | Type 1/1.2 |
| Pixel size | 5.86 µm × 5.86 µm |
| Lens mount | C-Mount |
| Max. frame rate at full resolution | 40 fps at >=200 MByte/s, Mono8 |
| ADC | 12 Bit |
| Image buffer (RAM) | 256 KByte |
| Non-volatile memory (Flash) | 1024 KByte |

**Imaging performance**

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured without optical filter.

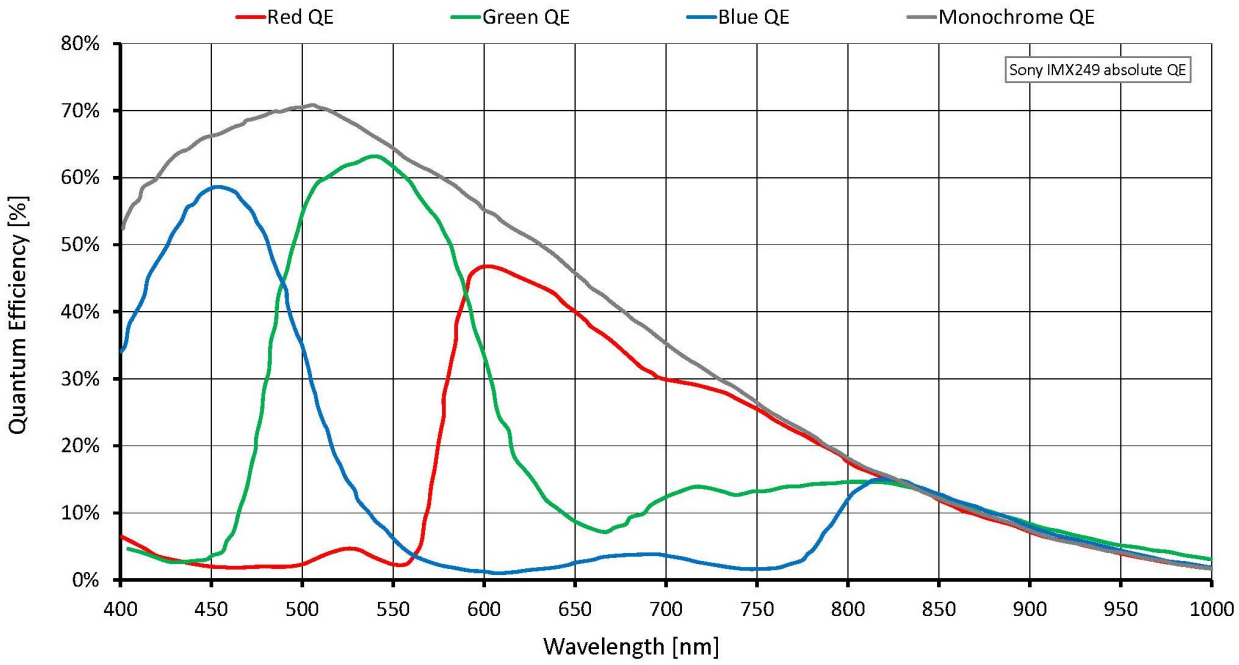
| **Output** | |
|---|---|
| Bit depth | 10-bit, 12-bit; Adaptive (10-bit, 12-bit) |
| Monochrome pixel formats | Mono8, Mono10, Mono10p, Mono12, Mono12p |

| **General purpose inputs/outputs (GPIOs)** | |
|---|---|
| TTL I/Os | 4 programmable GPIOs |

| **Operating conditions/dimensions** | |
|---|---|
| Operating temperature | -20 °C to +65 °C (housing) |
| Power requirements (DC) | Power over USB 3.1 Gen 1 \| External power 5.0 V |
| Power consumption | USB power: 2.1 W (typical) \| Ext. power: 2.3 W (typical) |

| | |
|---|---|
| Mass | 65 g |
| Body dimensions (L × W × H in mm) | 38 × 29 × 29 |

## 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
- Bandwidth control
- Counters and timers
- Firmware update in the field
- I/O and trigger control
- Readout modes (SensorBitDepth)
- Sequencer
- Serial I/Os
- Temperature monitoring
- U3 Power Saving Mode
- User sets

# Technical drawing

