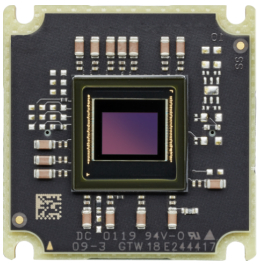
Allied Vision

Alvium
1800 U-052m



- IMX426 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-052 with Sony IMX426 runs 688.0 frames per second at 0.5 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	17248
Interface	USB3 Vision
Resolution	816 (H) × 624 (V)
Spectral range	300 to 1100 nm
Sensor	Sony IMX426
Sensor type	CMOS
Shutter mode	GS (Global shutter)
Sensor size	Type 1/1.7
Pixel size	9 µm × 9 µm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	688 fps at 450 MByte/s, Mono8
ADC	12 Bit
Image buffer (RAM)	256 KByte
Non-volatile memory (Flash)	1024 KByte
Quantum efficiency at 529 nm	73 %
Temporal dark noise	21.8 e^-
Saturation capacity	100000 e^-
Dynamic range	73 dB
Absolute sensitivity threshold	23.7 e^-

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: 1.9 W (typical) | Ext. power: 2.1 W (typical)
Mass	15 g
Body dimensions (L × W × H in mm)	14 × 26 × 26

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

