Allied Vision

Alvium
1800 U-812 UV

Model without hardware options

- IMX487 CMOS sensor
- ALVIUM image processing
- USB3 Vision
- Various hardware options

Alvium 1800 U – Your entry into high-performance imaging

Industrial USB cameras with attractive price-performance ratio

Alvium 1800 U-812 UV with Sony IMX487 runs 51 frames per second at 8.1 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 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

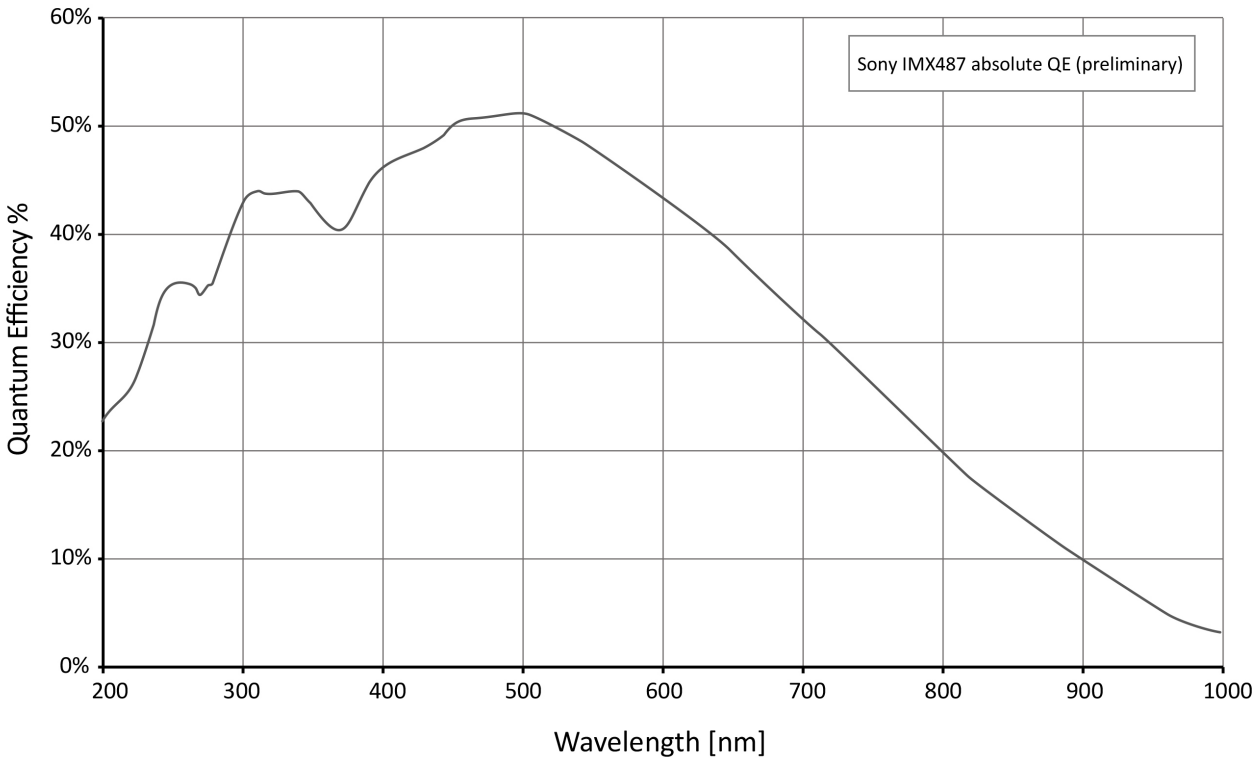
Interface	USB3 Vision
Resolution	2848 (H) × 2848 (V)
Spectral range	200 to 1100 nm
Sensor	Sony IMX487
Sensor type	CMOS
Shutter mode	GS (Global shutter)
Sensor size	Type 2/3
Pixel size	2.74 µm × 2.74 µm
Lens mounts (available)	C-Mount, CS-Mount
Max. frame rate at full resolution	51 fps at 450 MByte/s, Mono8
ADC	12 Bit
Image buffer (RAM)	256 KByte
Non-volatile memory (Flash)	1024 KByte

Output	
Bit depth	12-bit
Monochrome pixel formats	Mono8 (default), 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: 3.9 W (typical) | Ext. power: 4.1 W (typical)
Mass	65 g
Body dimensions (L × W × H in mm)	38 × 29 × 29

Quantum efficiency



Features

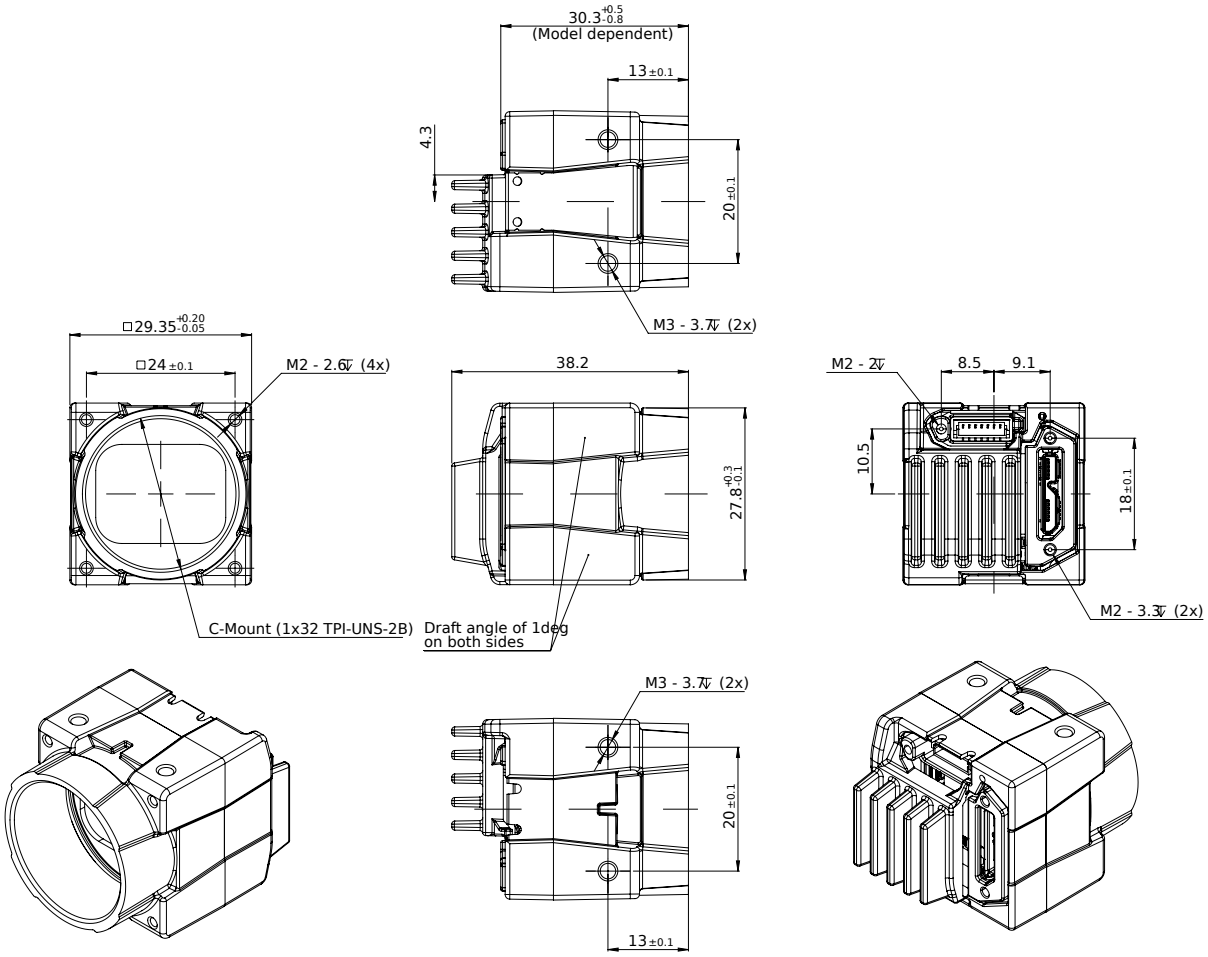
Image control: Auto

- Auto exposure
- Auto gain

Image control: Other

- Adaptive noise correction
- Binning: Digital
- Binning: Sensor (mono models)
- Black level
- Contrast
- Custom convolution
- DPC (defect pixel correction)
- FPNC (fixed pattern noise 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
- Sequencer
- Serial I/Os
- Temperature monitoring
- User sets

Technical drawing