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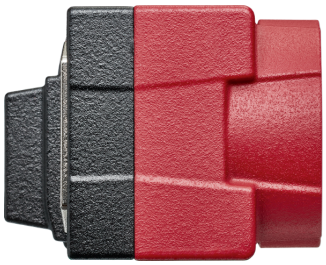
Allied Vision

USB3 VISION



Alvium 1800 U-1620c

- IMX542 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-1620 with Sony IMX542 runs 22.0 frames per second at 16.2 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-1620c Closed Housing C-Mount Standard	
Product code	15581
Interface	USB3 Vision
Resolution	5328 (H) × 3040 (V)

Allied Vision

Alvium 1800 U-1620c Closed Housing C-Mount Standard	
Spectral range	300 to 1100 nm
Sensor	Sony IMX542
Sensor type	CMOS
Shutter mode	Global shutter
Sensor size	Type 1.1
Pixel size	2.74 µm × 2.74 µm
Lens mount	C-Mount
Optical Filter	Type Hoya C5000 IR cut filter
Max. frame rate at full resolution	22 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
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: 4.0 W (typical) | Ext. power: 4.2 W (typical)
Mass	65 g
Body dimensions (L × W × H in mm)	38 × 29 × 29
Regulations	2014/30/EU; 2011/65/EU, incl. amendment 2015/863/EU (RoHS); FCC Class B digital device; CAN ICES-003 (B) / NMB-3 (B)

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

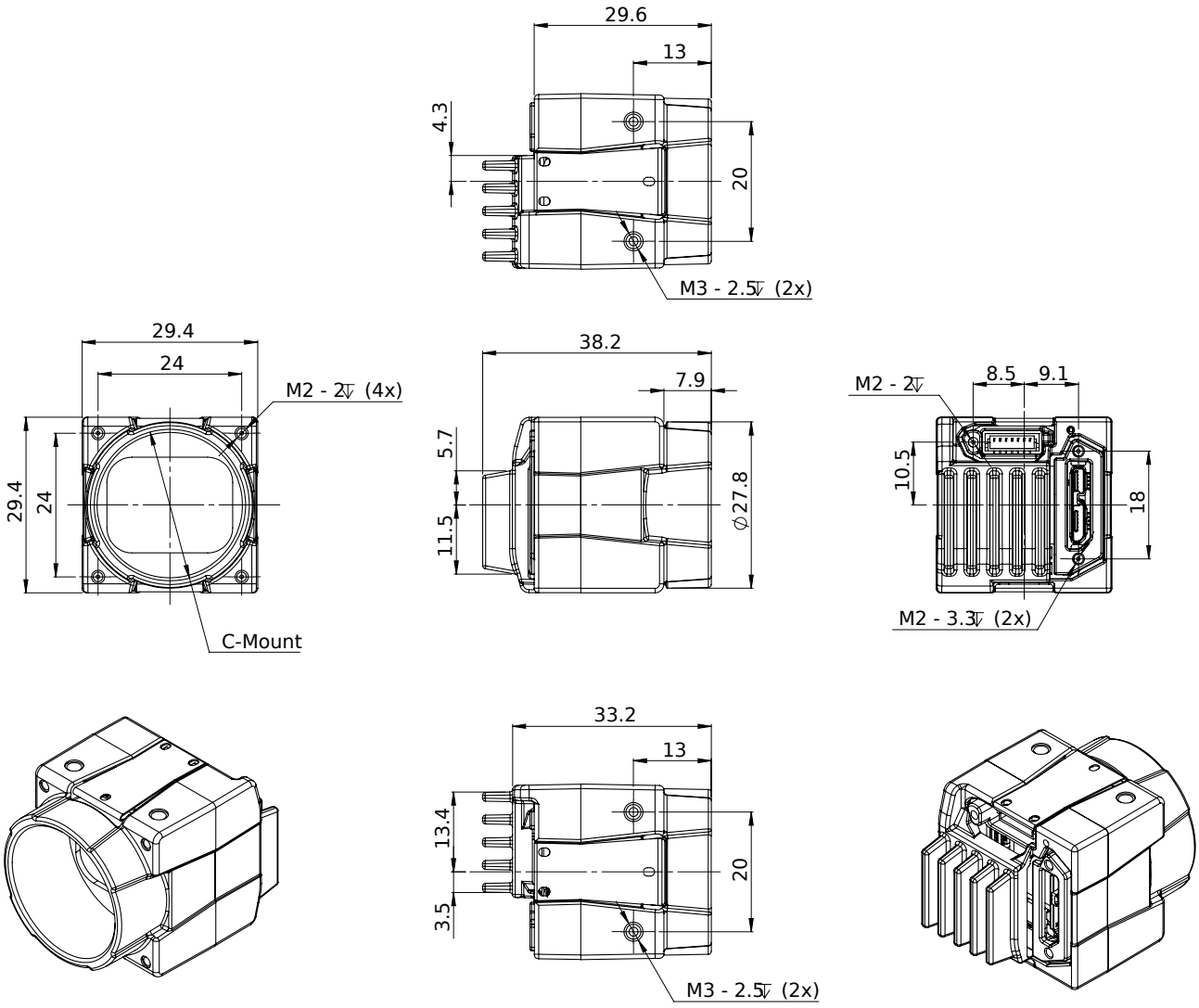
- Black level
- Contrast
- De-Bayering up to 5×5 (color models)
- Exposure time
- Gain
- Gamma
- Hue (color models)
- Saturation (color models)
- DPC (factory calibrated)
- FPNC (factory calibrated)
- Region of interest (ROI)
- Reverse X/Y

Camera control

- Sync out modes: Trigger ready, input
- Temperature monitoring (sensor board)
- LED luminance control
- Firmware update

Allied Vision

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.